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SUMMARY OF WATER QUALITY STANDARDS FOR THE INTERSTATE WATERS OF MAINE

Environmental Protection Agency
Washington, D. C.

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STATE OF MAINE

WATER QUALITY STANDARDS SUMMARY

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JOINT PUBLICATION BY

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PREFACE

The information contained herein has been condensed from the Water Quality Standards of the State of Maine, prepared by the Department of Environmental Protection, 1/ and approved by the Federal Government. This summary is intended for all who have an interest in the quality of water in the State.

A summary of this type, by design, omits many pertinent details. For more detailed information, consult the Department of Environmental Protection or the complete text of the Water Quality Standards, State of Maine.

1/ Prior to June 9, 1972, the Environmental Improvement Commission

September 1972

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SUMMARY OF WATER QUALITY STANDARDS FOR THE INTERSTATE WATERS OF MAINE

SUMMARY OF WATER QUALITY STANDARDS

FOR

THE INTERSTATE WATERS OF MAINE

Introduction

In the Water Quality Act of 1965, Congress authorized the establishment of water quality standards for interstate (including coastal) waters. The purpose of these standards is to protect and enhance the quality and productivity of the nation's interstate waters to serve a variety of beneficial uses, such as public water supply, recreation and protection of aquatic life, and industrial and agricultural uses. This publication summarizes the standards for the general information of the public and Federal, State and local officials as to the uses and associated requirements for interstate waterways.

The Act, which amended the Federal Water Pollution Control Act, provided for the States to have the first opportunity to establish standards for their interstate waters, which were then subject to review and approval by the Administrator, Environmental Protection Agency. 2/ All of the States, the District of Columbia and the Territories of Guam, Puerto Rico and the Virgin Islands participated in this landmark effort to set standards. In the course of establishing the standards, public hearings were held by the States and other jurisdictions noted above to give the public an opportunity to participate in setting water quality objectives and standards.

2/ Prior to December 2, 1970, Secretary of the Interior

The State of Maine adopted water quality standards for its interstate waters on October 7, 1967, and submitted them to the Federal Government for approval. The standards were approved with certain exceptions and recommendations on June 3 and December 12, 1968. At the request of the Federal Government, The Department of Environmental Protection presented to the Maine Legislature a classification of the St. John River, a reclassification of certain coastal waters of Hancock County and amendments to criteria for various classifications of waters. These were passed by the Legislature and adopted by the Department along with an antidegradation statement to protect Maine's high quality interstate waters. The Administrator, Environmental Protection Agency, approved these revisions and adopted recommendations and, thus, the standards in their entirety on March 2, 1971.

The approved standards are thus both State and Federal standards, enforceable under the State water pollution control statutes and the Federal Water Pollution Control Act, as amended (Section 10). The interstate waters for which standards were adopted are shown on the maps in Figures 1 through 11 accompanying the summary.

The standards consist of three major components: designation of the uses which interstate waters are to serve, specification of narrative and numerical criteria to protect and enhance water quality, and specification of a plan of implementation and enforcement, which includes treatment and control requirements for municipal, industrial and other waste discharged to or affecting interstate waters. These

components are discussed in the following sections; all three are essential to a complete standards program.

The standards are now being implemented. However, there will be continuing research on water quality requirements for various beneficial uses and improved collection and evaluation of water quality data. As more information becomes available and experience with implementing the standards is gained, the standards will be refined and improved to reflect this new knowledge.

Should more information be required on any aspect of the standards, it may be obtained from the Maine Department of Environmental Protection or the Regional Office of the Environmental Protection Agency in Boston, Massachusetts. Maine also has established water quality standards for its intrastate waters, and information on these standards may be obtained from the Maine Department of Environmental Protection. The State of Maine has representatives on the New England Interstate Water Pollution Control Commission which assists the States of the New England Compact area in the administration of their water pollution control programs.

The New England Interstate Water Pollution Control Compact, which was approved by Congress and ratified by the legislatures of the seven states, is the legal instrument for cooperation between the states in interstate water pollution control matters.

Maine has a number of rivers which are international streams between Maine and Canada. Pollution control on these streams is handled by the International Joint Commission, which acts to prevent pollution of boundary waters and waters crossing the boundary. The

IJC was organized in 1911 pursuant to the Treaty of January 11, 1909, between the United States and Great Britain. Its purpose is to prevent disputes regarding the use of boundary waters, settle questions between the United States and Canada involving rights, obligations, or interests of either along the common frontier and to make provisions for the adjustment and settlement of all such questions which may arise. The Department of Environmental Protection and the Environmental Protection Agency are currently participating in the activities of the Department by having members on the United States Section of the Advisory Board on Pollution Control of the St. Croix River.

The addresses of these agencies are given in Appendix IV.

WATER USES

The State of Maine designates the following uses to be protected in various interstate waters:

Fresh Waters

Class A shall be the highest classification and shall be of such quality that it can be used for recreational purposes, including bathing, and for public water supplies after disinfection.

Class B, the second highest classification, shall be divided into two designated groups as B-1 and B-2.

B-1. Waters of this class shall be considered the higher quality of the Class B group and shall be acceptable for recreational purposes, including water contact recreation, for use as potable water supply after adequate treatment and for a fish and wildlife habitat.

B-2. Waters of this class shall be acceptable for recreational purposes, including water contact recreation, for industrial and potable water supplies after adequate treatment, and for a fish and wildife habitat.

Class C waters, the third highest classification, shall be of such quality as to be satisfactory for recreational boating and fishing, for a fish and wildlife habitat and for other uses, except potable water supplies and water contact recreation, unless such waters are adequately treated.

Class D shall be assigned only where a higher classification cannot be attained after utilizing the best practicable treatment or

control of sewage or other wastes. Waters of the class may be used for power generation, navigation and industrial process waters after adequate treatment.

Tidal or Marine Waters

Class SA shall be suitable for all clean water usages, including water contact recreation and fishing. Such waters shall be suitable for the harvesting and propagation of shellfish and for a fish and wildlife habitat.

Class SB-1 shall be suitable for all clean water usages, including water contact recreation and fishing. Such waters shall be suitable for the harvesting and propagation of shellfish and for a fish and wildlife habitat.

Class SB-2 shall be suitable for recreational usages, including water contact and fishing. Such waters shall be suitable for the harvesting and propagation of shellfish, for a fish and wildlife habitat, and suitable for industrial cooling and process uses.

Class SC, the fourth highest classification, shall be of such quality as to be satisfactory for recreational boating, fishing and other similar uses, except primary water contact. Such waters may be used for the propagation of indigenous shellfish to be harvested for depuration purposes, for a fish and wildlife habitat, and industrial cooling and process uses.

Class SD waters shall be assigned only where a higher water classification cannot be attained after utilizing the best practicable treatment or control of sewage and other wastes. Waters of this class may be used for power generation, navigation, industrial process waters or cooling waters and for migration of fish.

The general aim in designating uses for particular interstate waters is to recognize present uses and practicable future uses: to provide, where possible, for a variety of uses; and to assure compatibility of standards with Federal, State and local resource planning. In order to satisfy the intent of the Federal Water Pollution Control Act to enhance water quality, the standards specifically provide that no interstate waters may be used solely or primarily for waste assimilation. All interstate waters must be aesthetically pleasing, and this quality is usually protected by narrative criteria preventing unsightly or obnoxious conditions, such as floating debris, oil slicks, unpleasant odors, and colors.

Specific use designations for all interstate waters covered by the standards are provided in Table 1.

Table I

Interstate Waters

Interstate Waters	Adopted* Classification	Public Water Supply	Recreation	Fish & Wildlife Propagation	Industrial Processing	Power	Shellfish	Agriculture	Aesthetics
Androscoggin River Basin									
Androscoggin River	C		X	X	X	X		X	X
Abbott Brook	A	X	XX	X	X	X		X	X
Bennett Brook	A	X	XX	X	X	X		X	X
Big Brook	B-1	X	XX	X	X	X		X	X
Ingalls Brook	B-1	X	XX	X	X	X		X	X
Lary Brook	B-1	X	XX	X	X	X		X	X
Little Magalloway R., Middle Branch	A	X	XX	X	X	X		X	X
Little Magalloway R., West Branch	A	X	XX	X	X	X		X	X
Magalloway River	A,B1	X	XX	X	X	X		X	X
Meadow Brook	B-1	X	XX	X	X	X		X	X
Moose Brook	B-1	X	XX	X	X	X		X	X
North Hammond Brook	B-1	X	XX	X	X	X		X	X
Sanderson Brook	A	X	XX	X	X	X		X	X
Shelter Brook	B-1	X	XX	X	X	X		X	X
Silver Stream	B-1	X	XX	X	X	X		X	X
Stearns Brook, South Branch	B-1	X	XX	X	X	X		X	X
Stearns Brook, North Branch	B-1	X	XX	X	X	X		X	X
Sucker Brook	B-1	X	XX	X	X	X		X	X
Trestle Brook	B-1	X	XX	X	X	X		X	X
Umbagog Lake	B-1	X	XX	X	X	X		X	X
Wild River	B-1	X	XX	X	X	X		X	X
Piscataqua River Basin									
Piscataqua River	B-1	X	XX	X	X	X		X	X
Great East Lake	B-1	X	XX	X	X	X		X	X
Horn Pond	B-1	X	XX	X	X	X		X	X
Northeast Pond	B-1	X	XX	X	X	X		X	X
Salmon Falls River	B-1	X	XX	X	X	X		X	X
Saco River Basin									
Saco River	B1,2	X	XX	X	X	X		X	X
	C		X	X	X	X		X	X
Cold River	B-1	X	XX	X	X	X		X	X
Langdon Brook	B-1	X	XX	X	X	X		X	X
Little Cold River	B-1	X	XX	X	X	X		X	X
Little Ossipee River	B-1	X	XX	X	X	X		X	X
Lower Kimball Lake	B-1	X	XX	X	X	X		X	X
Ossipee River	C		X	X	X	X		X	X
Province Lake & Brook	B-1	X	XX	X	X	X		X	X
Weeks Brook	B-1	X	XX	X	X	X		X	X

Note: X - indicates other than water contact recreation
XX - indicates primary water contact recreation
* - see page 5 for explanation of these classifications

Table I

Interstate Waters	Adopted Classification	Public Water Supply	Recreation	Fish & Wildlife Propogation	Industrial Processing	Power	Shellfish	Agriculture	Aesthetics
St. Croix River Basin									
St. Croix River	C		X	X	X	X		X	X
Chiputneticook Lakes	C		X	X	X	X		X	X
Monument Brook	C		X	X	X	X		X	X
St. John River Basin									
Aroostook River	A,B1								
	B2	X	XX	X	X	X		X	X
	C		X	X	X	X		X	X
Beaver Brook	A	X	XX	X	X	X		X	X
Big Black River	A	X	XX	X	X	X		X	X
Brown Brook	A	X	XX	X	X	X		X	X
Campbell Branch	A	X	XX	X	X	X		X	X
Carter Brook	A	X	XX	X	X	X		X	X
Daaquam River	A	X	XX	X	X	X		X	X
Dead Brook	A	X	XX	X	X	X		X	X
Dead Stream	B-2		XX	X	X	X		X	X
Fivemile Brook	A	X	XX	X	X	X		X	X
Gizoquit Brook	B-2		XX	X	X	X		X	X
Glazier Brook	A	X	XX	X	X	X		X	X
Limestone Stream	C		X	X	X	X		X	X
Little Black River	A	X	XX	X	X	X		X	X
Little Black River, West Br.	A	X	XX	X	X	X		X	X
Little St. Roch	A	X	XX	X	X	X		X	X
Meduxnekeag River	B1,2	X	XX	X	X	X		X	X
	C		X	X	X	X		X	X
Morrison Brook	A	X	XX	X	X	X		X	X
North Meduxnekeag River	A	X	XX	X	X	X		X	X
	C		X	X	X	X		X	X
Prestile Stream	C		X	X	X	X		X	X
Reviere Des Chutes	B-1	X	XX	X	X	X		X	X
St. Francis River	B-2		XX	X	X	X		X	X
St. John River, Southwest Br	A	X	XX	X	X	X		X	X
Shields Branch	A	X	XX	X	X	X		X	X
Smith Brook	B-2		XX	X	X	X		X	X
TIDAL WATERS									
Cumberland County									
Cousins River	SB-2		XX	X	X	X	X		X
Fore River	SC		X	X	X	X			X
Harraseeket River	SB-2		XX	X	X	X	X		X
Meadows Creek	SB-1		XX	X	X	X	X		X
Portland Harbor	SC		X	X	X	X			X
Presumpscot River	SC		X	X	X	X			X
Royal River	SB-2		XX	X	X	X	X		X
Scarboro River	SB-2		XX	X	X	X	X		X
Spurwink River	SC		X	X	X	X			X

Table I

Interstate Waters	Adopted Classification	Public Water Supply	Recreation	Fish & Wildlife Propagation	Industrial Processing	Power	Shellfish	Agriculture	Aesthetics
TIDAL WATERS (Cont'd.)									
Hancock County									
Bagaduce River	SA		XX	X	X	X	X		X
Benjamin River	SB-1		XX	X	X	X	X		X
Flanders Bay	SB-1		XX	X	X	X	X		X
Jordan River	SB-1		XX	X	X	X	X		X
Joy Cove	SB-1		XX	X	X	X	X		X
Morgan Bay	SB-1		XX	X	X	X	X		X
Northeast Harbor	SB-1		XX	X	X	X	X		X
Patten Bay	SB-1		XX	X	X	X	X		X
Penobscot River	SC		X	X	X	X			X
Salt Pond	SB-1		XX	X	X	X	X		X
Skillings River	SB-2		XX	X	X	X	X		X
Union River	SB-1		XX	X	X	X	X		X
West Bay	SB-1		XX	X	X	X	X		X
Knox County									
Goose River	SC		X	X	X	X			X
Meduncook River	SA		XX	X	X	X	X		X
Megunticook River	SC		X	X	X	X			X
St. George River	SA		XX	X			X		
Tenants Harbor	SC		X	X	X	X			X
Weskeag River	SB-1		XX	X	X	X	X		X
Lincoln County									
Back River, Boothbay	SB-1		XX	X	X	X	X		X
Back River, Westport	SB-1		XX	X	X	X	X		X
Boothbay Harbor	SB-2		XX	X	X	X	X		X
Cross River	SB-1		XX	X	X	X	X		X
Damariscotta River	SA		XX	X	X	X	X		X
	SB-1		XX	X	X	X	X		X
	SC		X	X	X	X	X		X
Johns River	SA		XX	X	X	X	X		X
Medomak River	SA		XX	X	X	X	X		X
	SB-1		XX	X	X	X	X		X
Pemaquid River	SC		X	X	X	X			X
Sheepscott River	SB-1		XX	X	X	X	X		X
Sagadahoc County									
Androscoggin River	SB-1		XX	X	X	X	X		X
Cathance River	SB-1		XX	X	X	X	X		X
Kennebec River	SB-1		XX	X	X	X	X		X
	SB-2		XX	X	X	X	X		X
Muddy River	SB-1		XX	X	X	X	X		X
Sasanoa River	SB-2		XX	X	X	X	X		X
Waldo County									
Belfast Harbor	SB-1		XX	X	X	X	X		X
	SB-2		XX	X	X	X	X		X
	SC		X	X	X	X			X

Table I

Interstate Waters	Adopted Classification	Public Water Supply	Recreation	Fish & Wildlife Propogation	Industrial Processing	Power	Shellfish	Agriculture	Aesthetics
Waldo County (Cont'd)									
Ducktrap Harbor	SA		XX	X	X	X	X		X
Goose River	SB-1		XX	X	X	X	X		X
Little River	SB-1		XX	X	X	X	X		X
Passagassawakeag River	SB-2		XX	X	X	X	X		X
Searsport Harbor	SB-1		XX	X	X	X	X		X
	SB-2		XX	X	X	X	X		X
Washington County									
Bobby Creek	SA		XX	X	X	X	X		X
Cape Split Harbor	SA		XX	X	X	X	X		X
Carrying Place Cove	SA		XX	X	X	X	X		X
Chandler River	SB-1		XX	X	X	X	X		X
	SC		X	X	X	X			X
Cobscook Bay	SA		XX	X	X	X	X		X
Dennys Bay	SA		XX	X	X	X	X		X
Dennys River	SB-1		XX	X	X	X	X		X
	SC		X	X	X	X			X
East Machias River	SC		X	X	X	X			X
Englishman River	SA		XX	X	X	X	X		X
Friar Roads	SA		XX	X	X	X	X		X
	SC		X	X	X	X	X		X
Hairdscrabble River	SC		X	X	X	X			X
Haycock River	SA		XX	X	X	X	X		X
Harrington River	SB-2		XX	X	X	X	X		X
Indian River	SA		XX	X	X	X	X		X
	SB-2		XX	X	X	X	X		X
Little Kennebec Bay	SA		XX	X	X	X	X		X
Little Machias Bay	SA		XX	X	X	X	X		X
Little River	SA		XX	X	X	X	X		X
Lubec Channel	SA		XX	X	X	X	X		X
Machias River	SC		X	X	X	X			X
Middle River	SC		X	X	X	X			X
Mill River	SB-1		XX	X	X	X	X		X
Moose River	SA		XX	X	X	X	X		X
Narraguagus River	SB-1		XX	X	X	X	X		X
Passamaquaddy Bay	SB-1		XX	X	X	X	X		X
Pennamaquam River			XX	X	X	X	X		X
Pleasant River	SA		XX	X	X	X	X		X
	SB-1		XX	X	X	X	X		X
Quaddy Roads	SA		XX	X	X	X	X		X
St. Croix River	SB-1		XX	X	X	X	X		X
	SB-2		XX	X	X	X	X		X
	SC		X	X	X	X			X
The Pool	SA		XX	X	X	X	X		X
Tank Stream	SA		XX	X	X	X	X		X

Table I

Interstate Waters	Adopted Classification	Public Water Supply	Recreation	Fish & Wildlife Propogation	Industrial Processing	Power	Shellfish	Agriculture	Aesthetics
Washington County (Cont'd)									
Western Passage	SA		XX	X	X	X	X		X
West River	SA		XX	X	X	X	X		X
Whiting Bay	SB-1		XX	X	X	X	X		X
York County									
Batson River	SC		X	X	X	X			X
Brave Boat Harbor	SA		XX	X	X	X	X		X
Cape Neddick Harbor	SB-2		XX	X	X	X	X		X
Chauncey Creek	SA		XX	X	X	X	X		X
Goose Fare Brook	SB-2		XX	X	X	X	X		X
Kennebunk River	SB-2		XX	X	X	X	X		X
	SC		X	X	X	X			X
Little River	SC		X	X	X	X			X
Mousam River	SB-1		XX	X	X	X	X		X
	SC		X	X	X	X			X
Ogunquit River	SC		X	X	X	X			X
Saco River	SC		X	X	X	X			X
Spruce Creek	SA		XX	X	X	X	X		X
Webhannet River	SB-1		XX	X	X	X	X		X
	SC		X	X	X	X			X
York River	SA		XX	X	X	X	X		X
	SB-2		XX	X	X	X	X		X

Water Quality Criteria

The protection of water quality and uses requires the establishment of numerical and narrative limits on pollutants which damage these uses. The water quality criteria in this section reflect the best scientific judgment available as to the water quality requirements for the assigned uses. Numerical criteria are used wherever it is reasonable to do so. However, narrative criteria are also necessary, in some cases, particularly with respect to aesthetic considerations.

Some interstate waters have a higher quality than the minimum levels assigned for protection of water uses, and the standards seek to protect this higher quality as much as possible in the face of increasing social and economic development. Scientific knowledge about the exact water quality requirements for uses is limited, and by preventing degradation of high quality waters, the standards seek to assure optimum, not marginal, conditions to protect the uses associated with clean waters.

Tables 2 and 3 summarize the water quality criteria for the various standards of classification. There is also given a statement of the general provisions of the duties of the Department of Environmental Protection, a statement on protecting high quality waters from degradation and a statement on the Department's policy with regard to temperature criteria for discharges. These statements follow.

DEPARTMENT OF ENVIRONMENTAL PROTECTION
REVISED STATUTES OF 1964 TITLE 38 (AS AMENDED)

EXCERPTS FROM CHAPTER 3 - PROTECTION AND IMPROVEMENT OF WATER

Section 361

It shall be the duty of the board, exercising the police power of the State, to control, abate and prevent the pollution of the air, waters, coastal flats and prevent diminution of the highest and best use of the natural environment of the State. The board shall make recommendations to each subsequent Legislature with respect to the classification of the waters and coastal flats and sections thereof within the State, based upon reasonable standards of quality and use.

The board shall make recommendations to each Legislature with respect to the control, abatement and prevention of pollution of the air, waters, coastal flats and other aspects of the natural environment within the State for the benefit of the citizens of the State.

The board shall consult with and advise the authorities of municipalities, persons and businesses having, or about to have, systems of drainage, sewerage or industrial wastes except purely storm water systems located in or on or draining from public ways, as to the best methods of disposing of the drainage, sewage or industrial wastes with reference to the existing and future needs of the municipality, other municipalities, persons or businesses which may be affected thereby. It may consult with and advise with persons or corporations engaged or intending to engage in any manufacturing or other business whose drainage, sewage or industrial wastes may tend to pollute any waters under the jurisdiction of the board, as to the best methods of preventing such pollution, and it may conduct experiments to determine the best methods of the purification or disposal of drainage, sewage and industrial waste. Municipalities, sewer districts, quasi-municipal corporations, firms, persons, state agencies, and other legal entities shall submit to said board for its advice and approval the plans and specifications for any proposed new system of drainage, sewage disposal, sewage treatment or industrial waste disposal into any waters of the State, except purely storm water systems located in or on or draining from public ways and any alterations in existing facilities. The board shall establish and enforce reasonable standards for the operation and maintenance of municipal, industrial, commercial and private waste treatment facilities.

NON-DEGRADATION AND TEMPERATURE CRITERIA RESOLUTIONS
BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION

The Maine Department of Environmental Protection, acting to further the preservation of and enhance the quality of the State's water resources, adopts the following resolution:

> Consistent with the classification system and policies established by the Legislature under Title 38, it is the intent of the Department of Environmental Protection to conserve the waters of the State and to protect, maintain, and improve the quality thereof for public water supply, for the propagation of wildlife, fish and aquatic life, and for domestic, agricultural, industrial, recreational, and other legitimate uses: and to provide that no waste be discharged into any waters of this State without first, as a minimum, being given the degree of treatment necessary to maintain the present classification; and to provide for the prevention, abatement and control of new and existing water pollution and to fully cooperate with other State, interstate, regional and Federal agencies in implementing this policy and in discharging their responsibilities.
>
> Waters whose existing quality exceeds the established classification standards will be maintained at such high quality unless it has been demonstrated to the Department that the change will not preclude uses presently possible in such waters and is justifiable as a result of necessary social or economic development. Any project or development which would constitute a new or an increased source of pollution to high quality waters will be required to provide the necessary degree of waste treatment to maintain such high water quality.

The Department of Environmental Protection, desiring to further improve and expand the availability of waters suitable for the propagation of fish and wildlife and to increase the suitability of these waters, and recognizing the State of Maine is sufficiently large and diverse that natural water quality varies considerably throughout its limits, hereby adopts the following resolution of policy:

There shall be no discharge to surface waters of the State of Maine altering the temperature or quality thereof in such a way, or to such a degree, that the usages under the applicable classification are impaired. It shall further be the policy of the Department of Environmental Protection to establish by regulation certain parameters of quality, including but not limited to temperature for specific streams and segments thereof, to effect more accurate controls for the benefit of aquatic life.

TABLE 2

SUMMARY TABLE OF WATER QUALITY CRITERIA

FOR FRESH AND TIDAL OR MARINE WATERS

OF MAINE

TABLE 2
STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
WATER QUALITY CRITERIA
FOR
FRESH WATERS

ITEM	CLASS A	CLASS B-1	CLASS B-2	CLASS C	CLASS D
Dissolved Oxygen	Not less than 75% saturation or as naturally occurs	Not less than 75% saturation and not less than 5 ppm at any time	Not less than 60% of saturation and not less than 5 ppm at any time	Not less than 5 ppm for trout and salmon waters and not less than 4 ppm for non-trout and non-salmon waters	Not less than 2.0 ppm
Sludge Deposits, Solid Refuse, Floating Solids, Scum	None allowable	None allowable	None allowable	None allowable	
Color and Turbidity	As naturally occurs	None in such concentrations that would impair any usages specifically assigned to this class	None in such concentrations that would impair any usages specifically assigned to this class	None in such concentrations that would impair any usages specifically assigned to this class	None in such concentrations that would impair any usages specifically assigned to this class
Taste and Odor	As naturally occurs	None in such concentrations that would impair any usages specifically assigned to this class	None in such concentrations that would impair any usages specifically assigned to this class	None in such concentrations that would impair any usages specifically assigned to this class	None in such concentrations that would impair any usages specifically assigned to this class

TABLE 2 (Continued)

ITEM	CLASS A	CLASS B-1	CLASS B-2	CLASS C	CLASS D
Coliform Bacteria	Not to exceed 100 per 100 ml	Total not to exceed 300 per 100 ml, fecal not to exceed 60 per 100 ml	Total not to exceed 1000 per 100 ml, fecal not to exceed 200 per 100 ml	Total not to exceed 5000 per 100 ml, fecal not to exceed 1000 per 100 ml	None in such amounts that will, in the determination of the Commission, indicate a condition harmful to the public health or impair any usages assigned to this class
pH	None which would cause the pH to be in a range where water would be harmful or offensive to humans or harmful to animal or aquatic life	6.0 to 8.5	6.0 to 8.5	6.0 to 8.5	None which would cause the pH to be in a range where usages shall be impaired
Allowable Temperature Increase	None which will raise the temperature more than 5°F and none that will raise non-trout and salmon waters above 84°F or trout and salmon waters above 68°F	None which will raise the temperature more than 5°F and none that will raise non-trout and salmon waters above 84°F or trout and salmon waters above 68°F	None which will raise the temperature more than 5°F and none that will raise non-trout and salmon waters above 84°F or trout and salmon waters above 68°F	None which will raise the temperature more than 5°F and none that will raise non-trout and salmon waters above 84°F or trout and salmon waters above 68°F	None which will raise the temperature more than 5°F and none that will raise non-trout and salmon waters above 84°F or trout and salmon waters above 68°F

TABLE 2 (Continued)

ITEM	CLASS A	CLASS B-1	CLASS B-2	CLASS C	CLASS D
Chemical Constituents	None which would be harmful or offensive to humans or harmful to animal or aquatic life	None which would be harmful to humans, animals or aquatic life or which would impair uses of this class	None which would be harmful to humans, animals or aquatic life or which would impair uses of this class	None which would be harmful to humans, animals or aquatic life or which would impair uses of this class	None which would be harmful to humans, animals or aquatic life or which would impair uses of this class
Radioactivity	None other than as naturally occurs	None which will raise radio-nuclide concentrations above USPHS 3/ drinking water standards	None which will raise radio-nuclide concentrations above USPHS drinking water standards	None which will raise radio-nuclide concentrations above USPHS drinking water standards	None which would be harmful to humans, animals or aquatic life or which would result in radio-nuclide concentrations in edible fish or other aquatic life thereby rendering them dangerous for human consumption

3/ United States Public Health Service

TABLE 3
DEPARTMENT OF ENVIRONMENTAL PROTECTION
WATER QUALITY CRITERIA
FOR
TIDAL OR MARINE WATERS

ITEM	CLASS SA	CLASS SB-1	CLASS SB-2	CLASS SC	CLASS SD
Dissolved Oxygen	Not less than 6.0 ppm at all times	Not less than 6.0 ppm at all times	Not less than 6.0 ppm at all times	Not less than 5.0 ppm at any time	Not less than 3.0 ppm at any time
Sludge Deposits, Floating Solids, Settleable Solids	None allowable	None allowable	None allowable	None allowable	None allowable
Color and Turbidity	None which will adversely affect usages of this class or be injurious to aquatic life or render such dangerous for human consumption	None which will adversely affect usages of this class or be injurious to aquatic life or render such dangerous for human consumption	None which will adversely affect usages of this class or be injurious to aquatic life or render such dangerous for human consumption	None which will adversely affect usages of this class or be injurious to aquatic life or render such dangerous for human consumption	None which will impair usages assigned to this class
Taste and Odor	None which will adversely affect usages of this class or be injurious to aquatic life or render such dangerous for human consumption	None which will adversely affect usages of this class or be injurious to aquatic life or render such dangerous for human consumption	None which will adversely affect usages of this class or be injurious to aquatic life or render such dangerous for human consumption	None which will adversely affect usages of this class or be injurious to aquatic life or render such dangerous for human consumption	None which will impair usages assigned to this class

TABLE 3 (Continued)

ITEM	CLASS SA	CLASS SB-1	CLASS SB-2	CLASS SC	CLASS SD
Coliform Bacteria In Shellfish Growing Areas	Median not in excess of 70 per 100 ml, nor shall 10% of samples exceed 230 per 100 ml	Median not in excess of 70 per 100 ml nor shall 10% of samples exceed 230 per 100 ml	Median not in excess of 70 per 100 ml, nor shall 10% of samples exceed 230 per 100 ml	Median in excess of 700 per 100 ml nor shall 10% of samples exceed 2300 per 100 ml	Not in amounts which, in the determination of the Commission, indicate a condition harmful to the public health or impair any usages assigned to this class
In Non-Shellfish Growing Areas	Not in excess of 70 per 100 ml, nor shall 10% of samples exceed 230 per 100 ml	Not in excess of 240 per 100 ml nor shall 10% of samples exceed 500 per 100 ml	Not in excess of 500 per 100 ml nor shall 10% of samples exceed 1000 per 100 ml	Not in excess of 1500 per 100 ml nor shall 10% of samples exceed 5000 per 100 ml	Not in amounts which in the determination of the Commission, indicate a condition harmful to the public health or impair any usages assigned to this class
Fecal Coliform Bacteria In Shellfish Growing Areas	Not in excess of 15 per 100 ml nor shall 10% of samples exceed 50 per 100 ml	Not in excess of 15 per 100 ml nor shall 10% of samples exceed 50 per 100 ml	Not in excess of 15 per 100 ml nor shall 10% of samples exceed 50 per 100 ml	Not in excess of 150 per 100 ml nor shall 10% of samples exceed 500 per 100 ml	

TABLE 3 (Continued)

ITEM	CLASS SA	CLASS SB-1	CLASS SB-2	CLASS SC	CLASS SD
In Non-Shellfish Growing Areas	Not in excess of 15 per 100 ml nor shall 10% of samples exceed 50 per 100 ml	Not in excess of 50 fecal coliforms per 100 ml, nor shall 10% of samples exceed 150 fecal coliforms per 100 ml, not in excess of 240 fecal coliforms per 100 ml, nor shall 10% of samples exceed 500 coliforms per 100 ml	Not in excess of 100 per 100 ml nor shall 10% of samples exceed 200 per 100 ml	Not in excess of 300 per 100 ml nor shall 10% of samples exceed 1000 per 100 ml	
pH	6.7 to 8.5	6.7 to 8.5	6.7 to 8.5	6.7 to 8.5	None which would cause the pH to be in a range where usages shall be impaired
Allowable Temperature Increase	None which will raise the monthly mean or the maximum daily temperature more than 4°F or where necessary more than 1.5°F during July, Aug. and September	None which will raise the monthly mean or the maximum daily temperature more than 4°F or where necessary more than 1.5°F during July, Aug. and September	None which will raise the monthly mean or the maximum daily temperature more than 4°F or where necessary more than 1.5°F during July, Aug. and September	None which will raise the monthly mean or the maximum daily temperature more than 4°F or where necessary more than 1.5°F during July, Aug. and September	None which will raise the monthly mean or the maximum daily temperature more than 4°F or where necessary more than 1.5°F during July, Aug. and September

TABLE 3 (Continued)

ITEM	CLASS SA	CLASS SB-1	CLASS SB-2	CLASS SC	CLASS SD
Chemical Constituents	None which would be harmful to humans, animal or aquatic life or which would adversely affect other uses of this class	None which would be harmful to human, animal or aquatic life or which would adversely affect other uses of this class	None which would be harmful to humans, animal or aquatic life or which would adversely affect other uses of this class	None which would be harmful to humans, animal or aquatic life or which would adversely affect other uses of this class	None which would be harmful to humans, animal or aquatic life or which would adversely affect other uses of this class
Radioactivity	None which would be harmful to humans, animal or aquatic life or which would result in radionuclide concentrations in edible fish or other aquatic life rendering them dangerous for human consumption	None which would be harmful to humans, animal or aquatic life or which would result in radionuclide concentrations in edible fish or other aquatic life rendering them dangerous for human consumption	None which would be harmful to humans, animal or aquatic life or which would result in radionuclide concentrations in edible fish or other aquatic life rendering them dangerous for human consumption	None which would be harmful to humans, animal or aquatic life or which would result in radionuclide concentrations in edible fish or other aquatic life rendering them dangerous for human consumption	None which would be harmful to humans, animal or aquatic life or which would result in radionuclide concentrations in edible fish or other aquatic life rendering them dangerous for human consumption

Implementation Plan

The "action" plan of the standards is the plan of implementation and enforcement. This plan sets forth the requirements for treatment and/or control of all conventional municipal and industrial waste discharges in the State which affect interstate waters, specifies the time within which this is to be accomplished, and contains programs for dealing with other water pollution control problems. In general, the standards call for installation of secondary treatment or the equivalent for all municipal and industrial wastes by October 1976. Information on the requirements for any particular discharger may be obtained from the Maine Department of Environmental Protection.

SPECIAL PROBLEMS

Combined Sewers

The control of pollution from combined sewers is recognized as being a major problem by the Department of Environmental Protection:

> Most cities and towns having aged sewage systems where storm drainage has been a major contributor to sewer flow are faced with the dilemma of collecting and treating huge amounts of storm water or providing overflows for 3 to 4 times dry weather flow. The dilemma is more often solved by providing overflows because interception and treatment is too costly. Generally speaking, the overall program of providing treatment for the municipalities is of more significance than having the program collapse because of insistence upon providing treatment or separation of storm water. Specific engineering studies aimed at prevention, correction, or treatment of storm water overflow should be conducted by those municipalities with storm water problems, and recommendations and cost studies made by such a study to determine the economic feasibility of controlling pollution from this source. This will be a long-range plan because of the nature of the problem involving sewer replacement, collection and chlorination basins, etc. The remedial action to be taken by individual municipalities, therefore, will be as variable as the complexity of the problem, and no fixed time schedule for controlling pollution from these sources has been adopted. Where shellfisheries and contact recreation are adversely affected by combined sewer overflows and in instances where classifications range from A through B-2 or SA through SB-2, every attempt will be made to correct combined overflows as per the time schedules given herein. In other cases an implementation plan will be solicited from the affected municipality to be submitted in subsequent program plans. 4/

4/ State of Maine, Material for Implementation Plan Common to All Interstate River and Tidal Waters Water Quality Standards

Nutrients

Planning for removal of phosphorous and nitrogen in waste waters would be premature until the effects of treatment plants is known. It is anticipated that phosphorous removal might be necessary at the Aroostook River, Meduxnekeag River and Prestile Stream. The effects of secondary treatment plant effluents will be studied and recommendations made after treatment plants are in operation. The State Program Plan will serve to report upon the necessity of tertiary treatment in the future. 5/

Individual Sources of Sewage

The private individual or common sewer presents a particularly difficult problem in such aspects as proper disposal, enforcement and operation of treatment units. Individual sources of sewage pollution are particularly prevalent along the Maine coastline with in excess of 300 outlets present in some townships. Where soil is suitable, which is not usually the case, proper rural disposal by use of a leaching field may be provided. If space is available, a septic tank and underdrained sand filter trenches or a filter bed would be suitable. On small lots there is presently no acceptable method of individual home-owner treatment, although treatment systems are being developed and some marketed. Unless such plants are simple to operate and practically maintenance free, the home owner is not going to be a dependable treatment plant operator. With these problems outlined, the Department hereby states that insofar as physically possible and within the means of available technology, the private individual polluter will be required to install adequate treatment and disinfection prior to October 1, 1976. 6/

5/ Ibid.

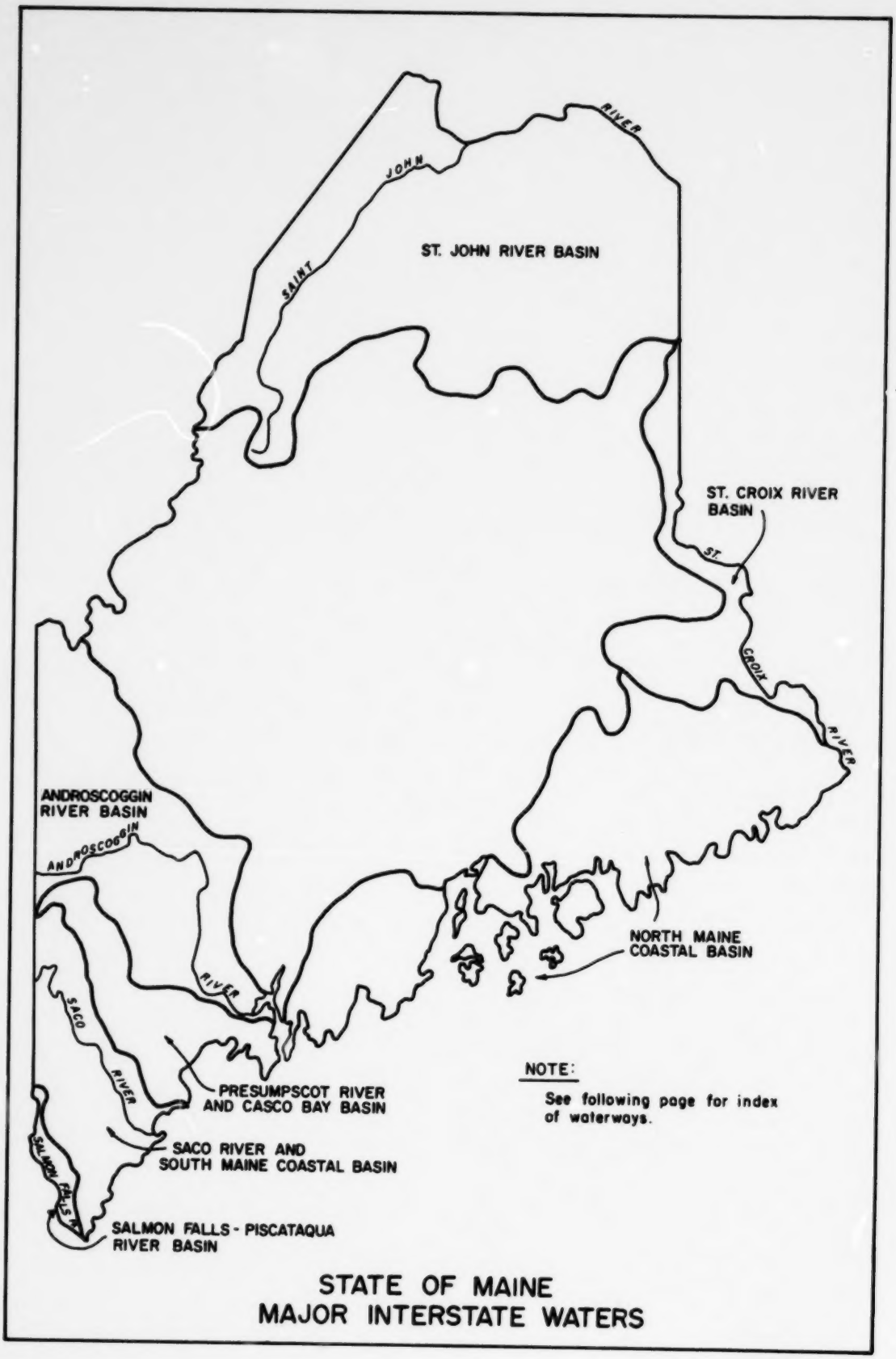
6/ Ibid.

RIVER BASIN MAPS OF WATER QUALITY STANDARDS

ADOPTED BY

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

NOTE: The following maps indicate by name only the larger of the interstate streams. To determine if a stream which is not shown is an interstate stream, consult the Water Uses Table or apply the definition as given in Appendix III.

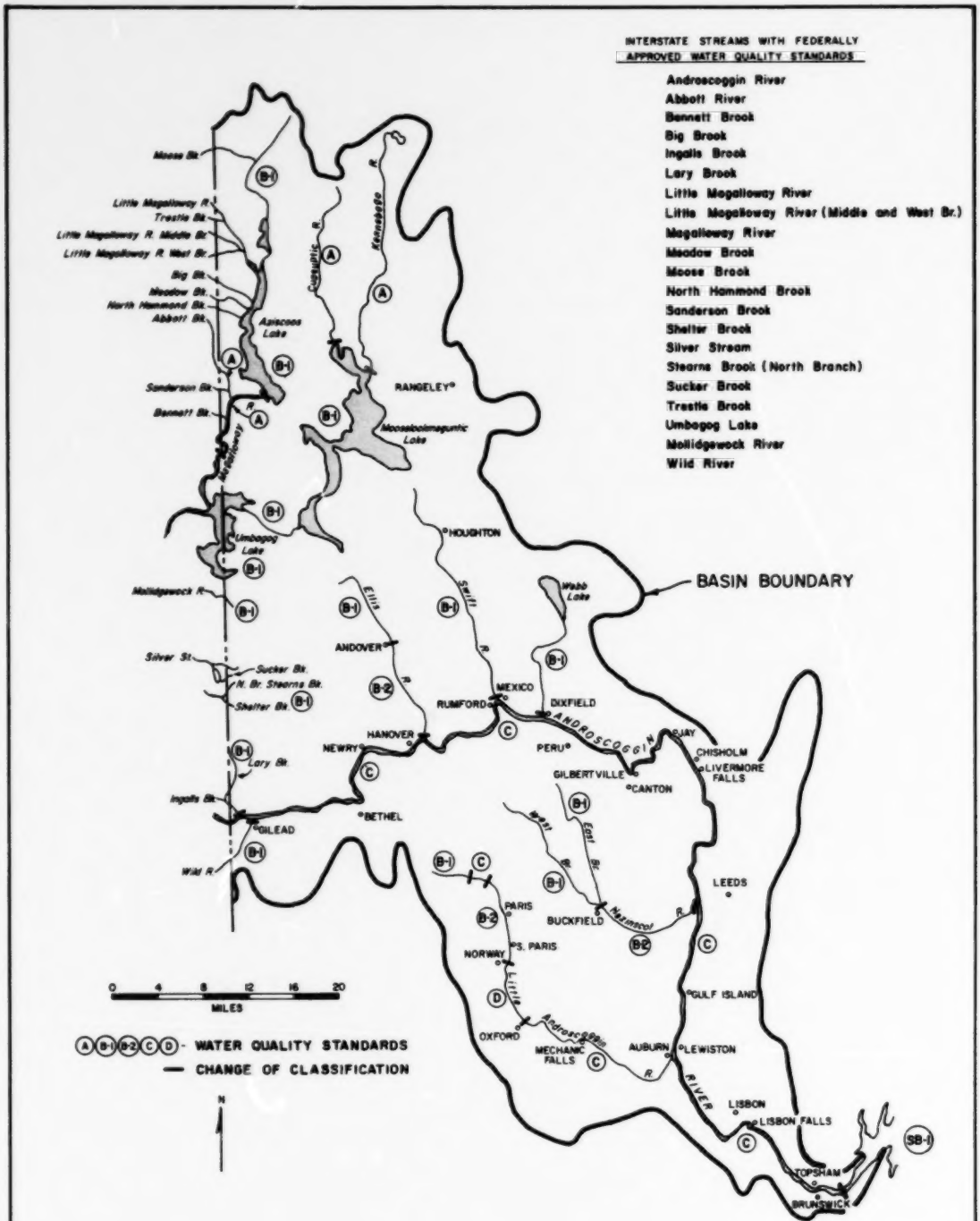


STATE OF MAINE
MAJOR INTERSTATE WATERS

FIGURE 1

INDEX OF MAJOR INTERSTATE WATERS

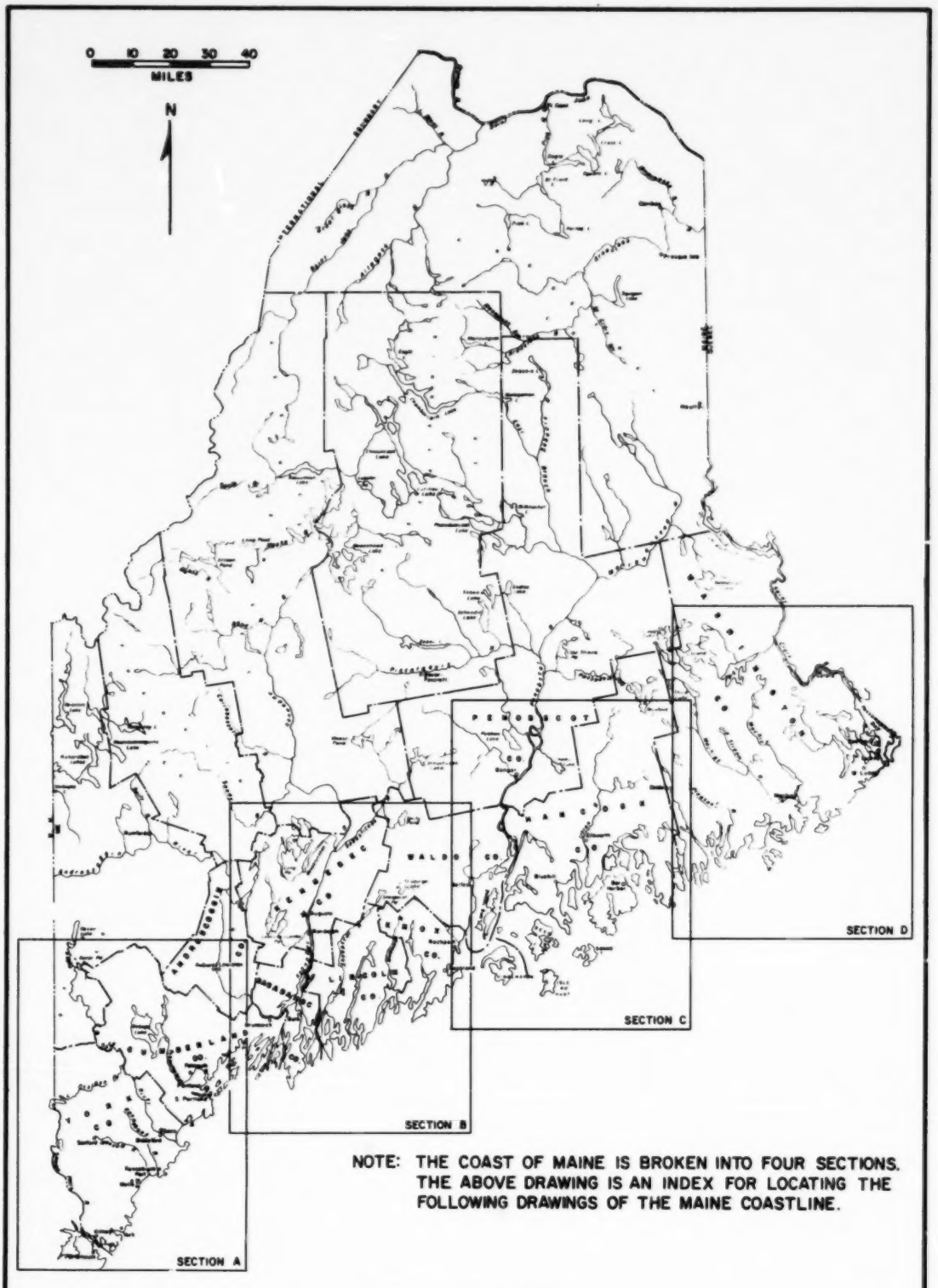
Androscoggin River Basin	Figure 2
Coastal Classifications	Figures 3-7
Saco River Basin	Figure 8
Salmon Falls - Piscataqua River Basin	Figure 9
St. Croix River Basin	Figure 10
St. John River Basin	Figure 11



WATER QUALITY STANDARDS
ADOPTED BY
STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

ANDROSCOGGIN RIVER BASIN CLASSIFICATION

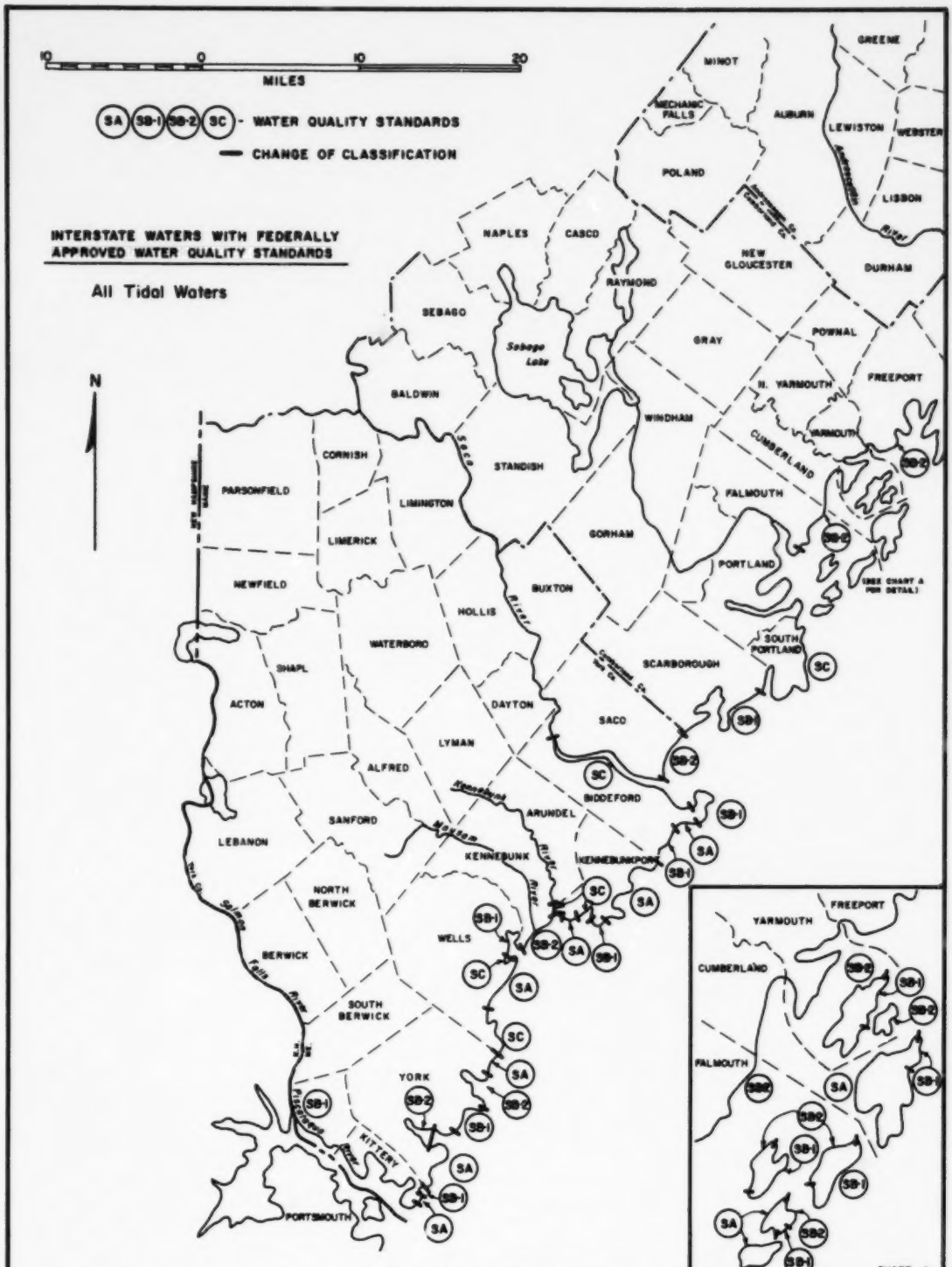
FIGURE 2



NOTE: THE COAST OF MAINE IS BROKEN INTO FOUR SECTIONS. THE ABOVE DRAWING IS AN INDEX FOR LOCATING THE FOLLOWING DRAWINGS OF THE MAINE COASTLINE.

STATE OF MAINE
COASTAL CLASSIFICATIONS INDEX MAP

FIGURE 3

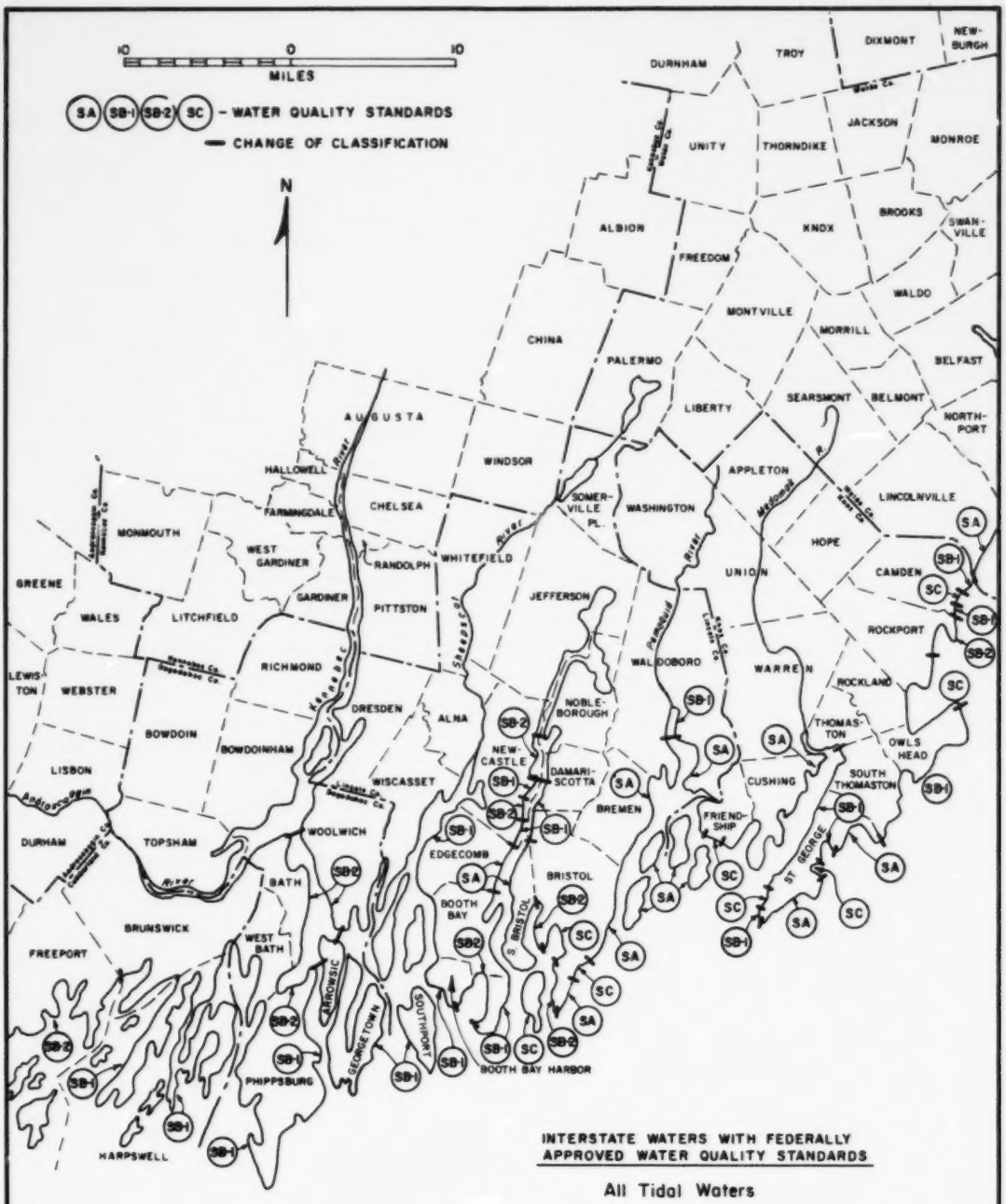


WATER QUALITY STANDARDS
ADOPTED BY
STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COASTAL CLASSIFICATION

SECTION A

FIGURE 4

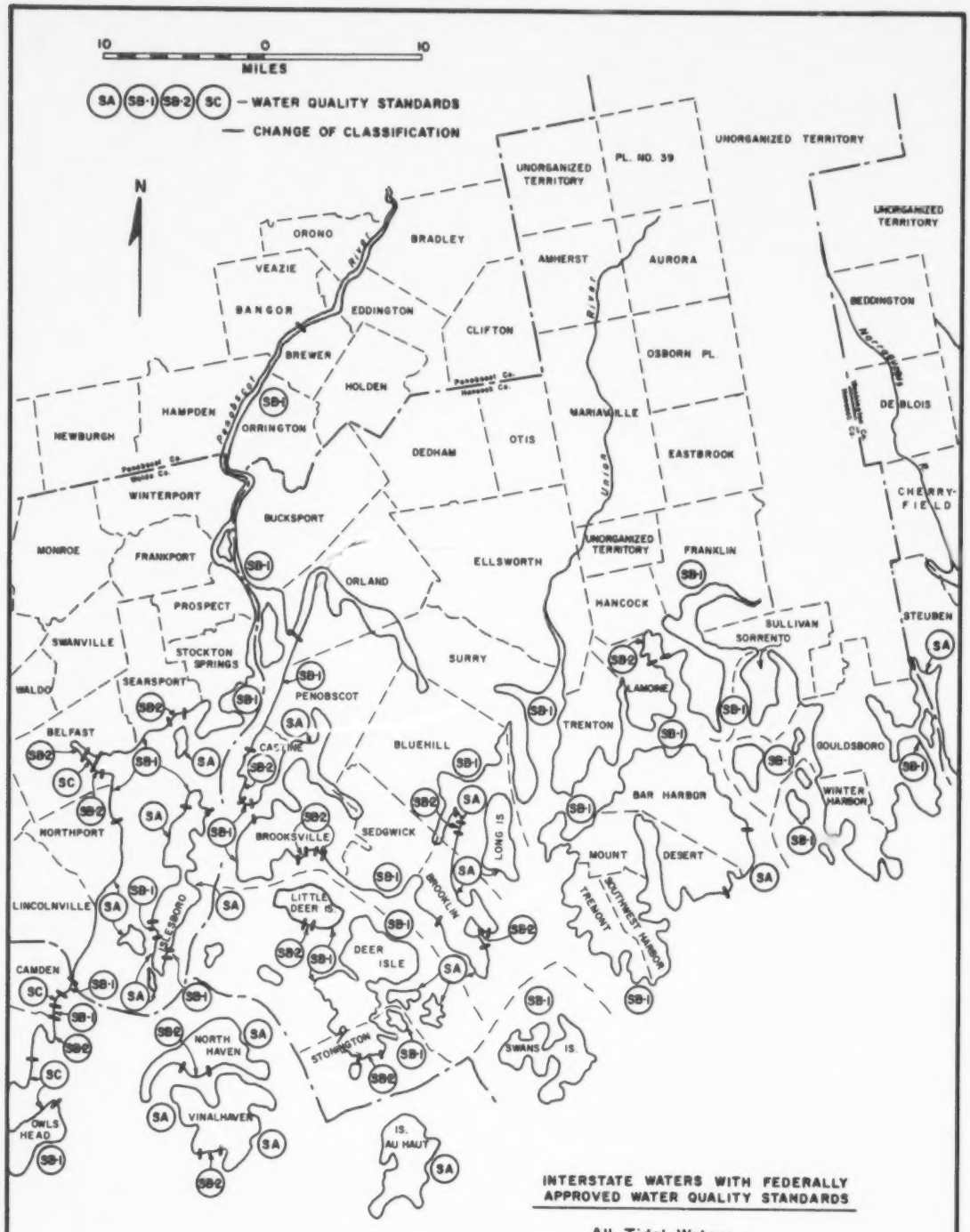


WATER QUALITY STANDARDS
ADOPTED BY
STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COASTAL CLASSIFICATION

SECTION B

FIGURE 5



WATER QUALITY STANDARDS
ADOPTED BY
STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COASTAL CLASSIFICATION

SECTION C

FIGURE 6

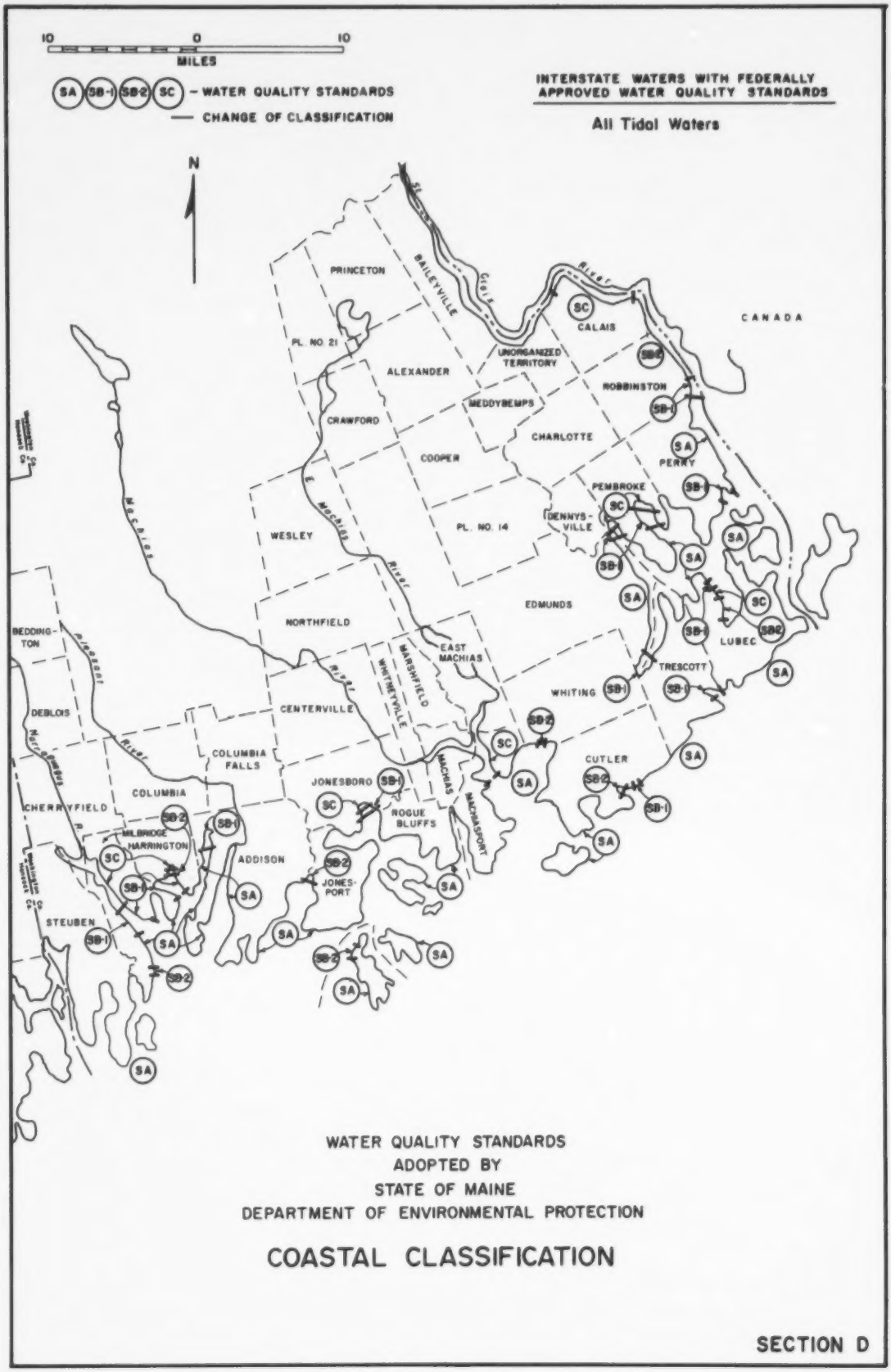
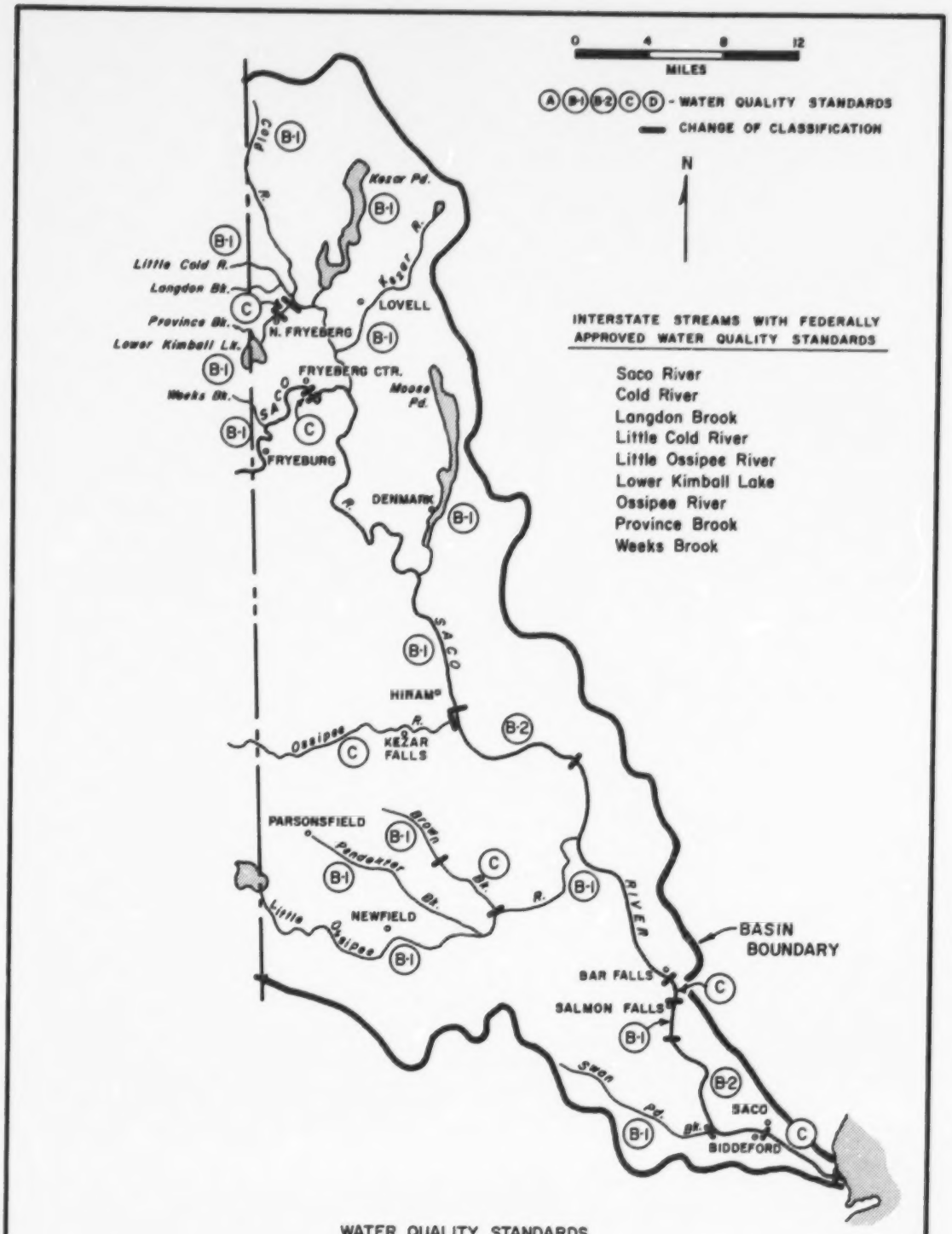

10 0 10
MILES
SA SB-1 SB-2 SC – WATER QUALITY STANDARDS
— CHANGE OF CLASSIFICATION
INTERSTATE WATERS WITH FEDERALLY APPROVED WATER QUALITY STANDARDS
All Tidal Waters
N
CANADA
PRINCETON
BAILEYVILLE
St. Croix River
CALAIS
PL. NO. 21
ALEXANDER
UNORGANIZED TERRITORY
ROBBINSTON
MEDDYBEMPS
CRAWFORD
CHARLOTTE
COOPER
PERRY
PEMBROKE
DENNYSVILLE
WESLEY
PL. NO. 14
E. MACHIAS River
MACHIAS
EDMUNDS
NORTHFIELD
BEDDINGTON
PIGEON
EAST MACHIAS
MARSHFIELD
WHITNEYVILLE
LUBEC
TRESCOTT
WHITING
DEBLOIS
CENTERVILLE
MACHIAS River
COLUMBIA FALLS
CUTLER
JONESBORO
MACHIASPORT
COLUMBIA
CHERRYFIELD
ROGUE BLUFFS
MILBRIDGE
HARRINGTON
ADDISON
JONESPORT
STEUBEN
WATER QUALITY STANDARDS
ADOPTED BY
STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
COASTAL CLASSIFICATION
SECTION D

FIGURE 7



WATER QUALITY STANDARDS
ADOPTED BY
STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

SACO RIVER BASIN CLASSIFICATION

FIGURE 8

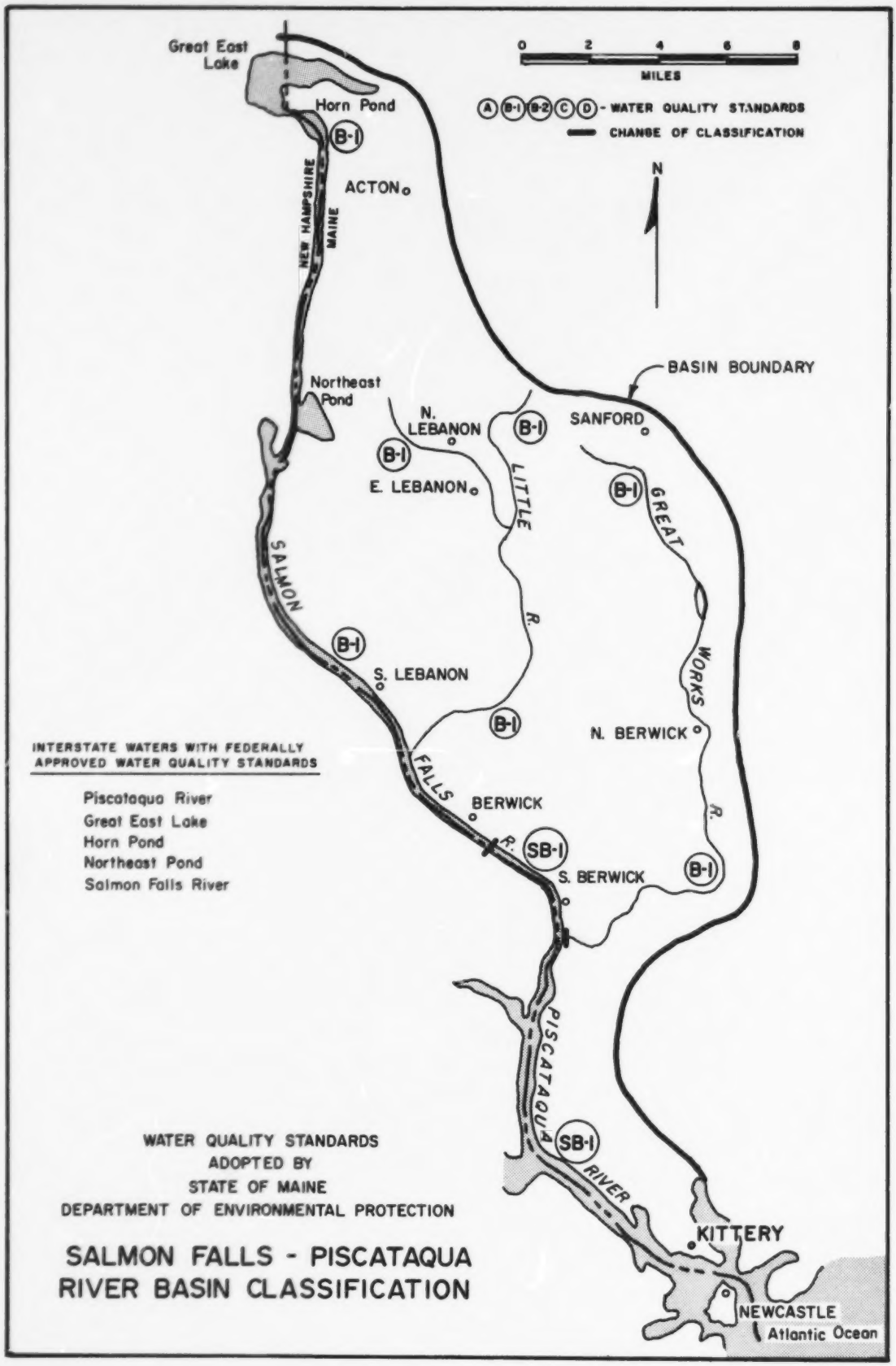
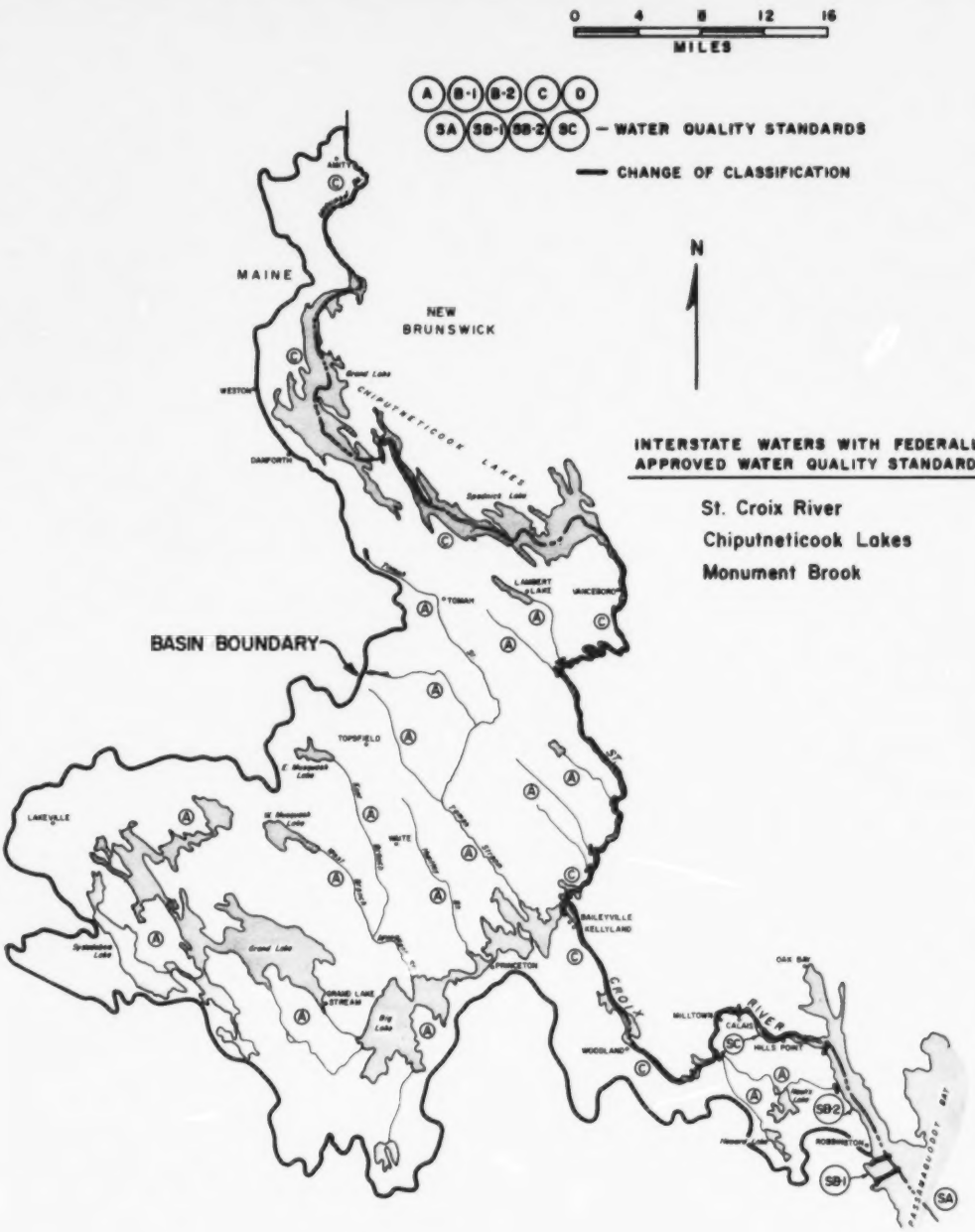

Great East Lake
Horn Pond
B-1
ACTON
NEW HAMPSHIRE
MAINE
Northeast Pond
N. LEBANON
E. LEBANON
SALMON
S. LEBANON
FALLS
BERWICK
R.
SB-1
S. BERWICK
LITTLE
R.
GREAT
WORKS
N. BERWICK
R.
B-1
SANFORD
BASIN BOUNDARY
0 2 4 6 8
MILES
A B-1 B-2 C D - WATER QUALITY STANDARDS
CHANGE OF CLASSIFICATION
N
INTERSTATE WATERS WITH FEDERALLY APPROVED WATER QUALITY STANDARDS
Piscataqua River
Great East Lake
Horn Pond
Northeast Pond
Salmon Falls River
PISCATAQUA
RIVER
SB-1
KITTERY
NEWCASTLE
Atlantic Ocean
WATER QUALITY STANDARDS
ADOPTED BY
STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SALMON FALLS - PISCATAQUA
RIVER BASIN CLASSIFICATION

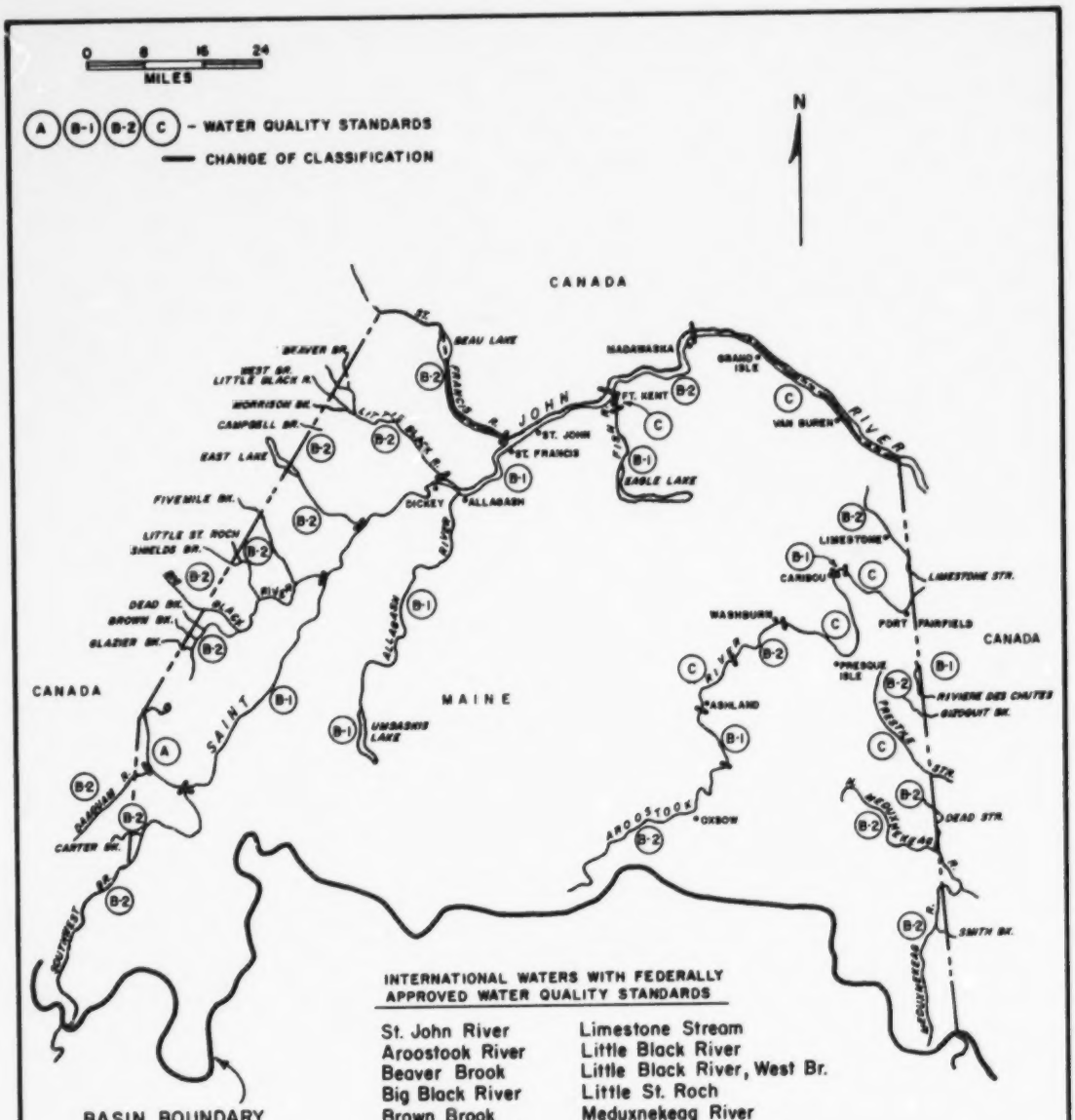
FIGURE 9



WATER QUALITY STANDARDS
ADOPTED BY
STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

ST. CROIX RIVER BASIN CLASSIFICATION

FIGURE 10



INTERNATIONAL WATERS WITH FEDERALLY APPROVED WATER QUALITY STANDARDS

St. John River	Limestone Stream
Aroostook River	Little Black River
Beaver Brook	Little Black River, West Br.
Big Black River	Little St. Roch
Brown Brook	Meduxnekeag River
Campbell Branch	Morrison Brook
Carter Brook	North Meduxnekeag River
Daaquam River	Prestile Stream
Dead Brook	Riviere Des Chutes
Dead Stream	St. Francis River
Fivemile Brook	St. John River Southwest Branch
Gizoquit Brook	Shields Branch
Glazier Brook	Smith Brook

WATER QUALITY STANDARDS
ADOPTED BY
STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

ST. JOHN RIVER BASIN CLASSIFICATION

FIGURE 11

APPENDIX I

MAINE LAWS
AUTHORIZING THE ESTABLISHMENT AND ENFORCEMENT
OF WATER QUALITY STANDARDS

EXCERPTS FROM TITLE 38
CHAPTER 3
PROTECTION AND IMPROVEMENT OF WATERS
AS AMENDED

DEPARTMENT OF ENVIRONMENTAL PROTECTION
REVISED STATUTES OF 1964

Title 38 (As Amended)

CHAPTER 3: PROTECTION & IMPROVEMENT OF WATERS

Sections: 361-A, 365, 367, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 451, 452, 453, 454

Effective September 23, 1971

WITH AMENDMENTS BY THE FIRST SPECIAL SESSION OF THE 105TH LEGISLATURE EFFECTIVE JUNE 9, 1972 AND JULY 1, 1972

Wherever in the Revised Statutes or public laws the words "Water and Air Environmental Improvement Commission" appear they shall mean "Environmental Improvement Commission." Wherever in the Revised Statutes the words "Environmental Improvement Commission" appears they shall mean the "Board of Environmental Protection."

CHAPTER 3

PROTECTION AND IMPROVEMENT OF WATERS

§ 361-A. Definitions

As used in this chapter, unless the context otherwise indicates, the following words shall have the following meanings:

1. Discharge. "Discharge" when used with reference to water, means any spilling, leaking, pumping, pouring emptying, dumping or disposing therein.

2. Fresh surface waters. "Fresh surface waters" means all waters of the State other than tidal waters.

3. Municipality. "Municipality" means a city, town, plantation or unorganized township.

4. Person. "Person" means an individual, firm, corporation, municipality, quasi-municipal corporation, state agency, federal agency or other legal entity.

5. Tidal waters. "Tidal waters" means those portions of the Atlantic Ocean within the jurisdiction of the State, and all other waters of the State subject to the rise and fall of the tide except those waters listed and classified in sections 368 and 369.

6. Transfer of ownership. "Transfer of ownership" means a sale, a lease, a sale of over 50% of the stock of a corporation to one legal entity or a merger or consolidation where the surviving corporation is other than the original licensee.

1971, c. 470, § 1.

Sec. 365. Classification procedure. The Commission, having made its studies and investigations of given drainage area or portion thereof, shall call public hearings in the area or reasonably adjacent thereto, for the purpose of presenting to all interested people the proposed classification for the particular body of surface waters or tidal flats. Such meeting shall be preceded by public notice of the meeting in a newspaper of state-wide distribution, said notice to appear 3 times within 30 days preceding the meeting and the last publication to be at least 10 days prior to the hearing and giving the time, place and purpose of the hearing. At least 2 members of the Commission shall attend each such hearing.

Within a reasonable time following the hearing the Commission shall give public notice of the propsed classification arrived at after considering the results of the hearing.

1971, c. 527, § 3.

Sec. 367. Classification of surface waters. The surface waters in sections 368 to 371 shall be classified in accordance with this subchapter.

The commission may, after careful consideration, public hearings and in consultation with other state agencies and, where appropriate, federal and interstate water pollution control agencies, and the municipalities and industries involved, classify or raise the classification of any fresh surface or tidal waters, or portions thereof, and such classification or new classification shall thereafter be the classification applicable to such fresh surface or tidal waters, or portions thereof, until 90 days after the date of adjournment of the next regular or special session of the Legislature unless such next regular or special session shall adopt by legislative enactment such new classification.

1967, c. 475 § 6-A; 1971, c. 470, § 4; 1971, c. 527, § 4.

ENVIRONMENTAL IMPROVEMENT COMMISSION
REVISED STATUTES OF 1964

Title 38 (As Amended)

Chapter 3: Protection & Improvement of Waters

Sections: 363-364—368-369—370-371
CLASSIFICATIONS OF SURFACE WATERS

Effective September 23, 1971

Wherever in the Revised Statutes or public laws the words "Water and Air Environmental Improvement Commission" appear they shall mean "Environmental Improvement Commission."

Sec. 363. Standards of classification of fresh waters. The Commission shall have 4 standards for the classification of fresh surface waters.

Class A shall be the highest classification and shall be of such quality that it can be used for recreational purposes, including bathing, and for public water supplies after disinfection. The dissolved oxygen content of such waters shall not be less than 75% saturation or as naturally occurs, and contain not more than 100 coliform bacteria per 100 milliliters.

These waters shall be free from sludge deposits, solid refuse and floating solids such as oils, grease or scum. There shall be no disposal of any matter or substance in these waters which would impart color, turbidity, taste or odor other than that which naturally occurs in said waters, nor shall such matter or substances alter the temperature or hydrogen-ion concentration of these waters or contain chemical constituents which would be harmful or offensive to humans or which would be harmful to animal or aquatic life. No radioactive matter or substance shall be permitted in these waters other than that occurring from natural phenomena.

There shall be no discharge of sewage or other wastes into water of this classification unless specifically licensed by the commission upon finding that no degradation will result to the quality of such waters, and no deposits of such material on the banks of such waters in such a manner that transfer of the material into the waters is likely. Such waters may be used for log driving if such use will not lower its classification.

1971 c. 461, § 2.

Class B, the 2nd highest classification, shall be divided into 2 designated groups as **B-1** and **B-2.**

B-1. Waters of this class shall be considered the higher quality of the Class B group and shall be acceptable for recreational purposes, including water contact recreation, for use as potable water supply after adequate treatment and for a fish and wildlife habitat. The dissolved oxygen of such waters shall be not less than 75% of saturation, and not less than 5 parts per million at any time. The total coliform bacteria count is not to exceed 300 per 100 milliliters. The fecal coliform bacteria shall not exceed 60 per 100 milliliters.

These waters shall be free from sludge deposits, solid refuse and floating solids such as oils, grease or scum. There shall be no disposal of any matter or substance in these waters which imparts color, turbidity, taste or odor which would impair the usages ascribed to this classification nor shall such matter or substance after the temperature or hydrogen-ion concentration of these waters so as to render such waters harmful to fish or other aquatic life. There shall be no discharge to these waters which will cause the hydrogen-ion concentration or "pH" of these waters to fall outside of the 6.0 to 8.5 range. There shall be no disposal of any matter or substance that contains chemical constituents which are harmful to humans, animals or aquatic life or which adversely affect any other water use in this class. No radioactive matter or substances shall be discharged to these waters which will raise the radio-nuclide concentrations above the standards as established by the United States Public Health Service as being acceptable for drinking water. These waters shall be free of any matter or substance which alters the composition of bottom fauna, which adversely affects the physical or chemical nature of bottom material, or which interferes with the propagation of fish.

There shall be no disposal of sewage, industrial wastes or other wastes in such waters, except those which have received treatment for the adequate removal of

waste constituents including, but not limited to, solids, color, turbidity, taste, odor or toxic material, such that these treated wastes will not lower the standards or alter the usages of this classification, nor shall such disposal of sewage or waste be injurious to aquatic life or render such dangerous for human consumption.

B-2. Waters of this class shall be acceptable for recreational purposes including water contact recreation, for industrial and potable water supplies after adequate treatment, and for a fish and wildlife habitat. The dissolved oxygen of such waters shall not be less than 60% of saturation, and not less than 5 parts per million at any time. The total coliform bacteria is not to exceed 1,000 per 100 milliliters. The fecal coliform bacteria is not to exceed 200 per 100 milliliters.

These waters shall be free from sludge deposits, solid refuse and floating solids such as oils, grease and scum. There shall be no disposal of any matter or substance in these waters which imparts color, turbidity, taste or odor which would impair the usages ascribed to this classification, nor shall such matter or substance alter the temperature or hydrogen-ion concentration of the waters so as to render such waters harmful to fish or other aquatic life. There shall be no disposal of any matter or substance that contains chemical constituents which are harmful to humans, animal or aquatic life, or which adversely affect any other water use in this class. There shall be no discharge to these waters which will cause the hydrogen-ion concentration or "pH" of these-waters to fall outside of the 6.0 to 8.5 range. No radioactive matter or substance shall be discharged to these waters which will raise the radio-nuclide concentrations above the standards as established by the United States Public Health Service as being acceptable for drinking water. These waters shall be free of any matter or substance which alters the composition of bottom fauna, which adversely affects the physical or chemical nature of bottom material, or which interferes with the propagation of fish.

There shall be no disposal of sewage, industrial wastes or other wastes in such waters except those which have received treatment for the adequate removal of waste constituents including, but not limited to, solids, color, turbidity, taste, odor or toxic material, such that these treated wastes will not lower the standards or alter the usages of this classification, nor shall such disposal of sewage or waste be injurious to aquatic life or render such dangerous for human consumption.

Class C waters, the 3rd highest classification, shall be of such quality as to be satisfactory for recreational boating and fishing, for a fish and wildlife habitat and for other uses except potable water supplies and water contact recreation, unless such waters are adequately treated.

The dissolved oxygen content of such waters shall not be less than 5 parts per million for trout and salmon waters, and not less than 4 parts per million for non-trout and non-salmon waters. The total coliform bacteria is not to exceed 5,000 per 100 milliliters. The fecal coliform bacteria is not to exceed 1,000 per 100 milliliters.

These waters shall be free from sludge deposits, solid refuse and floating solids such as oils, grease or scum. There shall be no disposal of any matter or substance in these waters which imparts color, turbidity, taste, or odor which would impair the usages ascribed to this classification, nor shall such matter or substance alter the temperature or hydrogen-ion content of the waters so as to render such waters harmful to fish or other aquatic life. There shall be no discharge to these waters which will cause the hydrogen-ion concentration or "pH" of these waters to fall outside of the 6.0 to 8.5 range. There shall be no disposal of any matter or substance that contains chemical constituents which are harmful to humans, animal or aquatic life or which adversely affect any other water use in this class. No radioactive material or substance shall be discharged to these waters which will raise the radio-nuclide concentration above the stand-

ards as established by the United States Public Health Service as being acceptable for drinking water.

There shall be no disposal of sewage, industrial wastes or other wastes in such waters, except those which have received treatment for the adequate removal of waste constituents including, but not limited to, solids, color turbidity, taste, odor or toxic material, such that these treated wastes will not lower the standards or alter the usages of this classification, nor shall such disposal of sewage or waste be injurious to aquatic life or render such dangerous for human consumption.

CLASS D waters shall be assigned only where a higher water classification cannot be attained after utilizing the best practicable treatment or control of sewage or other wastes. Waters of this class may be used for power generation, navigation and industrial process waters after adequate treatment.

Dissolved oxygen of these waters shall not be less than 2.0 parts per million. The numbers of coliform bacteria allowed in these waters shall be only those amounts which will not, in the determination of the Commission, indicate a condition harmful to the public health or impair any usages ascribed to this classification.

These waters shall be free from sludge deposits, solid refuse and floating solids such as oils, grease or scum. There shall be no disposal of any matter or substance in these waters which imparts color, turbidity, taste or odor which would impair the usages ascribed to this classification, nor shall such matter or substance alter the temperature or hydrogen-ion concentration of the waters to impair the usages of this classification. There shall be no disposal of any matter or substance that contains chemical constituents which are harmful to humans or which adversely affect any other water use in this class. No radioactive matter or substance shall be permitted in these waters which would be harmful to humans, animal or aquatic life and there shall be no disposal of any matter or substance which would result in radio-nuclide concentrations in edible fish or other aquatic life thereby rendering them dangerous for human consumption.

There shall be no disposal of sewage, industrial wastes or other wastes in such waters, except those which have received treatment for the adequate removal of waste constituents including, but not limited to, solids, color, turbidity, taste, odor or toxic material, such that these treated wastes will not lower the standards or alter the usages of this classification. Treated wastes discharging to these waters shall not create a public nuisance as defined in Title 17, Section 2802, by the creation of odor producing sludge banks and deposits or other nuisance conditions.

With respect to all classifications hereinbefore set forth, the Commission may take such actions as may be appropriate for the best interests of the public, when it finds that any such classification is temporarily lowered due to abnormal conditions of temperature or stream flow.

1967, c. 475, § 4; 1969, c. 431, §§ 1-2

Sec. 364. Tidal or Marine Waters. The Commission shall have 5 standards for classification of tidal waters.

1971, c. 470, § 2.

Marine waters shall include the waters of the Atlantic Ocean, its bays, inlets, etc., to mean high tide within 3 nautical miles from the coast line and all other tidal waters within the State generally subject to the rise and fall of the tides. In estuaries or coastal streams subject to the rise and fall of the tides, tidal or marine water classifications shall apply unless otherwise specified by statute.

CLASS SA, shall be suitable for all clean water usages, including water contact recreation, and fishing. Such waters shall be suitable for the harvesting and propagation of shellfish and for a fish and wildlife habitat. These waters shall contain not less than 6.0 parts per million of dissolved oxygen at all times. The median numbers of coliform bacteria in any series of samples representative of

waters in the shellfish growing area or non-shellfish growing area shall not be in excess of 70 per 100 milliliters, nor shall more than 10% of the samples exceed 230 coliform bacteria per 100 milliliters.

The median numbers of fecal coliform bacteria in any series of samples representative of waters in the shellfish growing area or non-shellfish growing area shall not be in excess of 15 per 100 milliliters, nor shall more than 10% of the samples exceed 50 fecal coliform bacteria per 100 milliliters.

There shall be no floating solids, settleable solids, oil or sludge deposits attributable to sewage, industrial wastes or other wastes and no deposit garbage, cinders, ashes, oils, sludge or other refuse. There shall be no discharge of sewage or other wastes, except those which have received treatment for the adequate removal of waste constituents including, but not limitd to, solids, color, turbidity, taste, odor or toxic material, such that these treated wastes will not lower the standards or alter the usages of this classification, nor shall such disposal of sewage or waste be injurious to aquatic life or render such dangerous for human consumption.

There shall be no toxic wastes, deleterious substances, colored or other waste or heated liquids discharged to waters of this classification either singly or in combinations with other substances or wastes in such amounts or at such temperatures as to be injurious to edible fish or shellfish or to the culture or propagation thereof, or which in any manner shall adversely affect the flavor, color, odor or sanitary condition thereof; and otherwise none in sufficient amounts to make the waters unsafe or unsuitable for bathing or impair the waters for any other best usage as determined for the specific waters assigned to this class. There shall be no discharge which will cause the hydrogen-ion concentration or "pH" of these waters to fall outside of the 6.7 to 8.5 range.

There shall be no disposal of any matter or substances that contains chemical constituents which are harmful to humans, animal or aquatic life or which adversely affect any other water use in this class. No radioactive matter or substance shall be permitted in these waters which would be harmful to humans, animal or aquatic life and there shall be no disposal of any matter or substance which would result in radio-nuclide concentrations in edible fish or other aquatic life thereby rendering them dangerous for human consumption. These waters shall be free of any matter or substance which alters the composition of bottom fauna, which adversely affects the physical or chemical nature of bottom material, or which interferes with the propagation of fish or shellfish if indigenous to the area.

CLASS SB-1 shall be suitable for all clean water usages including water contact recreation, and fishing. Such waters shall be suitable for the harvesting and propagation of shellfish, and for a fish and wildlife habitat. These waters shall contain not less than 6.0 parts per million of dissolved oxygen at all times. The median numbers of coliform bacteria in any series of samples representative of waters in the shellfish growing area shall not be in excess of 70 per 100 milliliters, nor shall more than 10% of the samples exceed 230 coliform bacteria per 100 milliliters. The median numbers of fecal coliform bacteria in any series of samples representative of waters in the shellfish growing area shall not be in excess of 15 per 100 milliliters, nor shall more than 10% of the samples exceed 50 fecal coliform bacteria per 100 milliliters. In a non-shellfish growing area the median numbers of coliform bacteria in a series of samples representative of the waters shall not exceed 240 per 100 milliliters, nor shall more than 10% of the samples exceed 500 coliform bacteria per 100 milliliters. In a non-shellfish growing area the median numbers of fecal coliform bacteria in a series of samples representative of the waters shall not exceed 50 per 100 milliliters, nor shall more than 10% of the samples exceed 150 fecal coliform bacteria per 100 milliliters.

There shall be no floating solids, settleable solids, oil or sludge deposits attributable to sewage, industrial wastes or other wastes and no deposit of garbage, cinders, ashes, oils, sludge or other refuse. There shall be no discharge of sewage or other wastes, except those which have received treatment for the adequate removal of waste constituents including but not limited to, solids, color, turbidity, taste, odor or toxic material, such that these treated wastes will not lower the standards or alter the usages of this classification, nor shall such disposal of sewage or waste be injurious to aquatic life or render such dangerous for human consumption.

There shall be no toxic wastes, deleterious substances, colored or other wastes or heated liquids discharged to waters of this classification, either singly or in combination with other substances or wastes in such amounts or at such temperatures as to be injurious to edible fish or shellfish or to the culture or propagation thereof, or which in any manner shall adversely affect the flavor, color, odor or sanitary condition thereof; and otherwise none in sufficient amounts to make the waters unsafe or unsuitable for bathing or impair the waters for any other best usage as determined for the specific waters which are assigned to this class. There shall be no waste discharge which will cause the hydrogen-ion concentration or "pH" of these waters to fall outside the 6.7 to 8.5 range. There shall be no disposal of matter or substance that contains chemical constituents which are harmful to humans, animal or aquatic life or which adversely affects any other water use in this class. No radioactive matter or substance shall be permitted in these waters which would be harmful to humans, animal or aquatic life and there shall be no disposal of any matter or substance which would result in radio-nuclide concentrations in edible fish or other aquatic life thereby rendering them dangerous for human consumption. These waters shall be free of any matter or substance which alters the composition of bottom fauna, which adversely affects the physical or chemical nature of bottom material or which interferes with the propagation of fish or shellfish if indigenous to the area.

CLASS SB-2 shall be suitable for recreational usages, including water contact, and fishing. Such waters shall be suitable for the harvesting and propagation of shellfish, for a fish and wildlife habitat, and suitable for industrial cooling and process uses. These waters shall contain not less than 6.0 parts per million of dissolved oxygen at all times. The median numbers of coliform bacteria in any series of samples representative of waters in the shellfish growing area shall not be in excess of 70 per 100 milliliters, nor shall more than 10% of the samples exceed 230 coliform bacteria per 100 milliliters. The median numbers of fecal coliform bacteria in any series of samples representative of waters in the shellfish growing area shall not be in excess of 15 per 100 milliliters, nor shall more than 10% of the samples exceed 50 fecal coliform bacteria per 100 milliliters In a non-shellfish growing area the median numbers of coliform bacteria in a series of samples representative of the waters shall not exceed 500 per 100 milileters, nor shall more than 10% of the samples exceed 1,000 coliform bacteria per 100 milliliters. In a non-shellfish growing area the median numbers of fecal coliform bacteria in a series of samples representative of the waters shall not exceed 100 per 100 milliliters, nor shall more than 10% of the samples exceed 200 fecal coliform bacteria per 100 milliliters. There shall be no floating solids, settleable solids, oil or sludge deposits attributable to sewage, industrial wastes or other wastes and no deposit of garbage, cinders, ashes, oils, sludge or other refuse. There shall be no discharge of sewage or other wastes, except those having received treatment for the adequate removal of waste constituents including but not limited to, solids, color, turbidity, taste, odor or toxic material, such that these treated wastes will not lower the standards or alter the usages of this classification, nor shall such disposal of sewage or waste be injurious to aquatic life or render such dangerous for human consumption.

There shall be no toxic wastes, deleterious substances, colored or other wastes or heated liquids discharged to waters of this classification either singly or in

combination with other substances or wastes in such amounts or at such temperatures as to be injurious to edible fish or shellfish or to the culture or propagation thereof, or which in any manner shall adversely affect the flavor, color, odor or sanitary condition thereof; and otherwise none in sufficient amounts to make the waters unsafe or unsuitable for bathing or impair the waters for any other best usage as determined for the specific waters assigned to this class. There shall be no waste discharge which will cause the hydrogen-ion concentration or "pH" of the receiving waters to fall outside of the 6.7 to 8.5 range. There shall be no disposal of any matter or substance that contains chemical constituents which are harmful to humans, animal or aquatic life or which adversely affects any other water use in this class. No radioactive matter or substance shall be permitted in these waters which would be harmful to humans, animal or aquatic life and there shall be no disposal of any matter or substance which would result in radio-nuclide concentrations in edible fish or other aquatic life thereby rendering them dangerous for human consumption. These waters shall be free of any matter or substance which alters the composition of bottom fauna, which adversely affects the physical or chemical nature of bottom material, or which interferes with the propagation of fish or shellfish if indigenous to this area.

CLASS SC, the 4th highest classification, shall be of such quality as to be satisfactory for recreational boating, fishing and other similar uses except primary water contact. Such waters may be used for the propagation of indigenous shellfish to be harvested for depuration purposes, for a fish and wildlife habitat, and for industrial cooling and process uses. The dissolved oxygen content of such waters shall not be less than 5 parts per million at any time. The median numbers of coliform bacteria in any series of samples representative of waters in the shellfish growing area shall not be in excess of 700 per 100 milliliters, nor shall more than 10% of the samples exceed 2,300 coliform bacteria per 100 milliliters. The median numbers of fecal coliform bacteria in any series of samples representative of waters in the shellfish growing area shall not be in excess of 150 per 100 milliliters, nor shall more than 10% of the samples exceed 500 fecal coliform bacteria per 100 milliliters. In a non-shellfish growing area the median number of coliform bacteria in a series of samples representative of the waters shall not exceed 1,500 per 100 milliliters nor shall more than 10% of the samples exceed 5,000 coliform bacteria per 100 milliliters.

In a non-shellfish growing area the median numbers of fecal coliform bacteria in a series of samples representative of the waters shall not exceed 300 per 100 milliliters, nor shall more than 10% of the samples exceed 1,000 fecal coliform bacteria per 100 milliliters.

There shall be no floating solids, settleable solids, oil or sludge deposits attributable to sewage, industrial waste or other wastes, and no deposit of garbage, cinders, ashes, oils, sludge or other refuse. There shall be no discharge of sewage or other wastes, except those which have received treatment for the adequate removal of waste constituents including, but not limited to, solids, color, turbidity, taste, odor or toxic materials, such that these treated wastes will not lower the standards or alter the usages of this classification, nor shall such disposal of sewage or waste be injurious to aquatic life or render such dangerous for human consumption.

There shall be no toxic wastes, deleterious substances, colored or other wastes or heated liquids discharged to waters of this classification either singly or in combinations with other substances or wastes in such amounts or at such temperatures as to be injurious to edible fish or shellfish or to the culture or propagation thereof, or which in any manner shall adversely affect the flavor, color, or odor thereof or impair the waters for any other discharge ascribed to waters of this classification. There shall be no waste discharge which will cause the hydrogen-ion concentration or "pH" of the receiving waters to fall outside the 6.7 to 8.5 range. There shall be no disposal of any matter or substance that con

tains chemical constituents which are harmful to humans, animal or aquatic life or which adversely affects any other water use in this class. No radioactive matter or substance shall be permitted in these waters which would be harmful to humans, animals or aquatic life and there shall be no disposal of any matter or substance which would result in radio-nuclide concentrations in edible fish or other aquatic life thereby rendering them dangerous for human consumption.

CLASS SD waters shall be assigned only where a higher water classification cannot be attained after utilizing the best practicable treatment or control of sewage or other wastes. Waters of this class may be used for power generation, navigation, industrial process waters or cooling waters, and for migration of fish. Dissolved oxygen of these waters shall not be less than 3.0 parts per million at any time. The numbers of coliform bacteria allowed in these waters shall be only those amounts which will not, in the determination of the Commission, indicate a condition harmful to the public health or impair any usages ascribed to this classification.

These waters shall be free from sludge deposits, solid refuse and floating solids such as oils, grease or scum. There shall be no disposal of any matter or substance in these waters which imparts color, turbidity, taste or odor which would impair the usages ascribed to this classification, nor shall such matter or substance alter the temperature or hydrogen-ion concentration of the waters so as to impair the usages of this classification. There shall be no disposal of any matter or substance that contains chemical constituents which are harmful to humans or which adversely affect any other water use in this class. No radioactive matter or substance shall be permitted in these waters which would be harmful to humans, animal or aquatic life and there shall be no disposal of any matter or substance which would result in radio-nuclide concentrations in edible fish or other aquatic life thereby rendering them dangerous for human consumption.

There shall be no disposal of sewage, industrial wastes or other wastes in such waters, except those which have received treatment for the adequate removal of waste constituents including, but not limited to, solids, color, turbidity, taste, odor or toxic material, such that these treated wastes will not lower the standards or altar the usages of this classification. Treated wastes discharged to these waters shall not create a public nuisance as defined in Title 17, Section 2802, by the creation of odor-producing sludge banks and deposits or other nuisance conditions.

With respect to all classifications hereinbefore set forth, the Commission may take such actions as may be appropriate for the best interests of the public, when it finds that any such classification is temporarily lowered due to abnormal conditions of temperature or stream flow.

1967, c. 475, § 5; 1969, c. 431, § 3; 1970, c. 581, § 2

Temperature - Numerical Criteria

The temperature criteria in the Maine Revised Statutes are narrative in character. In order to provide an interpretation of the narrative statements, the Maine Environmental Improvement Commission adopted Rules and Regulations with specific numerical values on October 30, 1970.

These Rules and Regulations read as follows:

> The Environmental Improvement Commission, desiring to further improve and expand the availability of waters suitable for the propagation of fish and wildlife and to increase the suitability of these waters, and recognizing the State of Maine is sufficiently large and diverse that natural water quality varies considerably throughout its limits, hereby adopts the following resolution of policy:
>
> > There shall be no discharge to surface waters of the State of Maine altering the temperature or quality thereof in such a way, or to such a degree, that the usages under the applicable classification are impaired. It shall further be the policy of the Environmental Improvement Commission to establish by regulation certain parameters of quality, including but not limited to temperature for specific streams and segments thereof, to effect more accurate controls for the benefit of aquatic life.
>
> Unless modified by more stringent regulations temperature requirements are to be as follows:
>
> > For Fresh Waters: Rivers and streams of this general category shall not be warmed at any given location by heat of artificial origin more than 5°F as measured outside of a mixing zone reasonably established by the Commission as set forth in Section 451. The epilimnion of lakes and ponds of this category shall not be warmed at any given location by heat of artificial origin more than 3°F as measured outside of a mixing zone reasonably established by the Commission as set forth in Title 38, Section 451. In no event shall any waters of this category not designated as trout or salmon waters be warmed by heat of artificial origin to more than 84°F, nor shall any waters of this category designated as trout or salmon waters be warmed by heat of artificial origin to more than 68°F.

No heated effluent shall be discharged in the vicinity of, or so as to affect, waters designated as fish spawning beds by the Department of Inland Fisheries and Game.

For Tidal Waters: There shall be no discharge of heated effluent into waters of this category which will raise the monthly mean of the maximum daily temperature of the waters as measured outside of a mixing zone reasonably established by the Commission as set forth in Title 38, Section 451, more than $4^{o}F$ or, where the necessity therefor in any specific location is shown to exist more than $1.5^{o}F$ during the months of July, August, and September.

Note 1: These criteria do not apply to conditions brought about by natural causes.

Note 2: There shall be allowed a reasonable transition period for compliance with these criteria by existing installations or those under construction.

APPENDIX II

INTERSTATE WATERS TO WHICH WATER QUALITY STANDARDS APPLY

UNDER

WATER POLLUTION CONTROL ACT

as amended by the Federal Water Pollution Control Act Amendments of 1961—(Public Law 87-88), the Water Quality Act of 1965—(Public Law 89-234), the Clean Water Restoration Act of 1966—(Public Law 89-753), and the Water Quality Improvement Act of 1970—(Public Law 91-224). Appendices:

Water quality standards, under Section 10 (c) (1) of the Act are to be established for, and made applicable to, interstate waters or portions thereof within the State.

1. The term "interstate waters," as defined in Section 23 (e) of the Act, means all rivers, lakes, and other waters that flow across or form a part of State boundaries, including coastal waters.

2. Within this definition, waters that flow across or form a part of State boundaries are subject to the provisions of Section 10 (c) (1) of the Act.

3. Waters that flow across or form a part of the international boundary between a State and foreign country are interstate waters within the meaning of the definition provided in Section 23 (e) of the Act and similarly subject to the provisions of Section 10 (c) (1) of the Act.

4. Coastal waters subject to the provisions of Section 10 (c) (1) of the Act are the ocean waters along straight coasts, the waters along indented coasts which are subject to the ebb and flow of the tides, and the waters of the Great Lakes.

5. As noted above, the definition of "interstate waters" is in terms of water bodies--"rivers," "lakes" and "other waters"--and is not limited to only those portions of these water bodies at the point at which they flow across or form a part of State boundaries. In effect, therefore, water quality standards are to be established for and made applicable to the entire stretch of the interstate waters within a State.

6. Tributaries of interstate waters, which are not in themselves interstate waters, are not subject to the requirements of subsection 10 (c) (1) of the Act. However, it is important to note that the discharge of any matter into such tributaries which reaches interstate waters and reduces the quality of such interstate waters below the established water quality standards is subject to abatement under Section 10 (c) (5) of the Act.

APPENDIX III

Glossary of Terms

Coliform Bacteria - For many years the best indicator of the sanitary quality of water has been an estimate of the density of coliform bacteria. More recently, tests have been developed for the determination of fecal coliform and fecal streptococci, which give a better indication of the concentration of bacteria in waters which may be harmful to human health. Bacterial concentrations originate primarily from municipal waste treatment plants, sanitary sewers, storm drains, vessels and agricultural wastes.

Biochemical Oxygen Demand (BOD) - The quantity of oxygen utilized in the biochemical oxidation of organic matter in a specified time and at a specified temperature. Waste discharges containing high levels of BOD will deplete oxygen supplies in receiving waters.

Disinfection - The killing of the larger portion (but not necessarily all) of the harmful and objectionable microorganisms in, or on, a medium by means of chemicals heat, ultraviolet light, etc. Chlorination is the method commonly employed in sewage treatment processes.

Dissolved Oxygen (DO) - The oxygen dissolved as a gas in sewage, water or other liquid usually expressed in milligrams per liter (mg/l), parts per million (ppm) or percent saturation. Adequate dissolved oxygen levels are necessary in waters to protect fish and other aquatic life and to prevent offensive odors. Low dissolved oxygen concentrations are generally due to excessive organic solids discharged as a result of inadequately treated waste (having high BOD); excessive algal growths may cause vastly fluctuating dissolved oxygen levels, and other factors such as temperature and water movement have an impact on dissolved oxygen levels.

Interstate Waters - Under the Federal Water Pollution Control Act, interstate waters are defined as:

1. Rivers, lakes and other waters which flow across or form a part of State or international boundaries.

2. Waters of the Great Lakes.

3. Coastal waters whose scope has been defined to include ocean waters seaward to the territorial limits and waters along the coastline (including inland streams) that are influenced by the rise and fall of the tide.

pH - The index of hydrogen ion activity, used as an indication of acidity or alkalinity in water. The pH of most waters ranges from 6.5 to 8.5, and most uses of water, such as aquatic life propagation, prosper at these levels. In most cases, a pH outside this range is due to discharge of industrial wastes or decaying organic vegetation.

Pollution - The addition of sewage, industrial wastes or other harmful or objectionable material to water at a concentration or in sufficient quantity to result in measurable degradation of water quality.

Primary and Secondary Contact Recreation - Also called Whole-body Contact Recreation. Primary Contact Recreation includes uses of water such as swimming, water skiing and skin diving. Secondary Contact Recreation, also called Partial-body Contact Recreation, includes such recreational uses as boating and fishing.

Primary Treatment - May be defined as that process or group of processes capable of removing a high percentage of floating and settleable solids. This is the first major treatment in a sewage treatment works and generally removes from 30 to 65 percent of the suspended solids and 30 to 40 percent of the 5-day biochemical oxygen demand.

Secondary Treatment - May be defined as that process or group of processes capable of removing virtually all floating and settleable solids, generally from 85 to 95 percent of the 5-day biochemical oxygen demand, and a similar level of removal of suspended solids in untreated waste. The equivalent treatment may generally be defined as that process or group of processes achieving maximum practicable removal of solids, oils, grease, acids, alkalis, toxic materials, bacteria, taste and odor causing materials, color and any other objectionable constituents contained in untreated waste to produce an effluent equivalent to that obtained from secondary treatment of sewage or the effluent from the most efficient treatment facilities in current use for any specific category of industrial waste.

Sewage - (1) The water supply of a community after it has been used and discharged into a sewer; (2) Wastewater from the sanitary conveniences of dwellings, business buildings, factories and other institutions.

Sewage, Combined - A sewage which contains both sanitary sewage and surface or storm water with or without industrial wastes.

Sewer, Combined - A sewer which carries both sanitary sewage and storm drainage. At times of heavy rainfall, the capacity of combined sewers may be exceeded and sewers will overflow. The overflow will bypass the sewage treatment plant and the combined wastewaters will be discharged directly into stream without treatment of any kind. This is a problem in many older cities in the United States, and there are various programs to deal with it.

Solids, Settleable - Suspended solids which will subside in quiescent water, sewage or other liquid in a reasonable period.

Solids, Suspended - Solids that either float on the surface of, or are in suspension in, water, sewage or other liquids and which are largely removable by laboratory filtering.

Temperature - Extreme temperatures primarily affect the aquatic life use of waters. While temperature is affected by natural conditions, man has a significant effect by the construction and operation of dams and the discharge of cooling waters from industrial processes, particularly power generation.

Toxic Materials - These may include hundreds of compounds present in waters due to industrial wastes, runoff from farm lands where pesticides have been applied and other causes which are harmful to human, plant, animal and aquatic life.

Warm- and Cold-Water Fish - Warm-water fish include black bass, sunfish, catfish, gar and others; cold-water fish include salmon and trout, whitefish, miller's thumb and blackfish. The temperature factor determining distribution is set by adaptation of the eggs to warm or cold water.

APPENDIX IV

Addresses

U. S. Environmental Protection Agency
Region I
John F. Kennedy Federal Building
Boston, Massachusetts 02203

State of Maine
Department of Environmental Protection
State House
Augusta, Maine 04330

New England Interstate Water Pollution
Control Commission
607 Boylston Street
Boston, Massachusetts 02108

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